MYRMECIA

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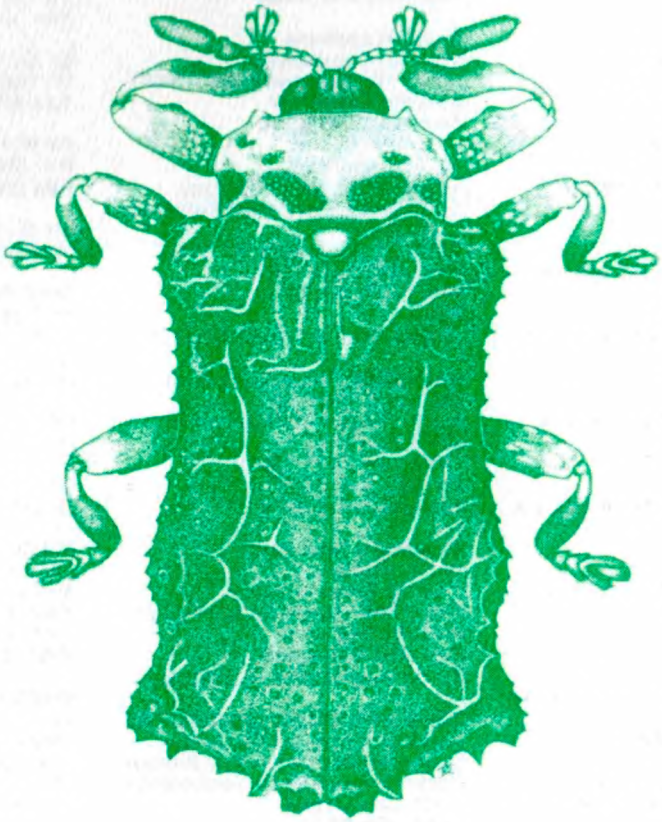

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THE COVER

The cover features *Octotoma championi* [Chrysomelidae], a leaf-feeding beetle imported to Australia as a biological control agent of lantana. The illustration, drawn by **Debbie Kent** of NSW State Forests, won 2nd place in the 1995 AES illustration competition at Tamworth.

MYRMECIA

CONTENTS

Executive Report 1
Conservation Committee 3
Survey of Members, Report 4
Towards the 4th Edition of ICZN 9
Regional News
New South Wales 10
Northern Territory 11
Queensland 13
South Australia 16
Victoria 18
Western Australia 19
Overseas News 20
News from Affiliated Societies 21
FASTS News 22
Electronic News 24
Coming Events 25
New Publications 30
Notices 31
1996 Listing of Postgraduate Projects . . . 32
Membership Appl. Form . . inside back cover

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Statements made in *Myrmecia* do not necessarily represent the views of the Australian Entomological Society. Items printed herein should not be reproduced without permission of the author of the material.

COPY DEADLINE FOR NEXT ISSUE

Material for publication in the November 1996 issue of *Myrmecia* should be in the hands of the Editor at the address below by **Friday 25 October 1996**. Submissions to fletchm@agric.nsw.gov.au is preferred but submission on IBM-compatible floppy disk in a major word processing format, or by fax, letter or carrier pigeon to the address below is acceptable.

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EXECUTIVE REPORT

MEETINGS

The Core Executive met on 16 May, 27 June and 1 August 1996.

NEW MEMBERS

We welcome the following new members to 1996 membership:

Elected 16 May 1996

Miss CL BROWN, PO Box 1055, Student Village, Unit 43 Rm 4, Murdoch University, Canning Vale, WA 6155 (Full Member). Cindy is a student at Murdoch University currently doing a Bachelor of Environmental Science.

Dr KA DAVIES, 101 Godfrey Tce, Erindale, SA 5066 (Full Member). Kerrie is a Lecturer in the Department of Crop Protection at the University of Adelaide. She has research interests in the physiology of plant parasitic nematodes and in the taxonomy and potential biocontrol applications of entomophilic nematodes.

Miss AB WILLIAMS, 8 Hamilton Parade, West Pymble, NSW 2073 (Full member). Anya is a technical Assistant for NSW Agriculture at Gosford with interests in entomology, herpetology, conservation, nature, bushwalking and cycling.

Dr HT TANAKA, Osaka Prefectural Agricultural and Forestry Research Centre, 442 Shakudo, Habikino, Osaka 583, Japan (Full member). Hiroshi is a Senior Researcher at the above institution.

Elected 27 June 1996

Ms J KENT, 47 Cremorne St, Malvern, SA 5061. (Student Member). Jo is an Honours student in the Department of Crop Protection, Waite Campus, working on the taxonomy of the parasitic Hymenoptera associated with the diamond-backed moth, *Plutella xylostella*, in Australia.

Dr MJ NAYAK, Unit 6, 162 Kelvin Grove Rd, Kelvin Grove, Qld 4059. (Full Member). Manoj is an honorary Research Associate in the Plant Protection Unit, DPI, Indooroopilly, with interests in public health and communicable diseases, biological control of pest plants and animals and sustainable use of natural resources and eco-conservation.

Miss TL SIMMUL, 2/7 Charles St, Richmond, Tas 7025. (Student Member). Tara is a student in the CRC for Temperate Hardwood Forestry working on Fireblight chrysomelid on Silver Wattle.

Mr C VANDERWOUDE, c/o Queensland Forestry Research Institute, MS 483, Fraser Rd, Gympie, Qld 4570. (Student Member). Cas is a PhD student at the University of New England working on the dynamics of ant communities and their use as indicators of ecological change in SE Queensland forests. He has interests in invertebrate conservation and the use of invertebrates as bioindicators.

Elected 1 August 1996

Mrs SL ALUGADDA, Department of Entomology, University of Queensland, Qld 4072. (Student Member). Swarnalatha is a Masters student at the above University.

Dr AL ILITCHEV, 11 Parsons Court, Mooroopna, Vic 3629. (Full Member). Alexandre is a Research Scientist (Entomology) at the Institute of Sustainable Irrigated Agriculture, Tatura, Vic, and has research interests in the control of the Oriental Fruit Moth in the deciduous orchard industry, and entomologically related IPM programs in other horticultural crops.

Resignations from membership

There were no resignations.

Change of Address, Status or Title

(16 May 1996)

Dr BK CANTRELL, Plant Protection Unit, Department of Primary Industries, 80 Meiers Rd, Indooroopilly (correction of address)

Ms GF CARRUTHERS, 12 Dunbar St, Fraser, ACT 2615 (ex ACT)

Dr LJ COOKSON, CSIRO Div of Forestry and Forest Products, Private Bag 10, Clayton South MDC, Clayton, Vic 3169 (correction of address)

Mrs A GREENER, GPO Box 1997, Hobart, Tas 7001 (ex Tas, from Full to Retired Member)

Dr ER RUMBO, CSIRO Division of Entomology, Long Pocket Laboratories, Private Bag No 3, Indooroopilly, Queensland 4068 (ex ACT)

Dr AM SMITH, Institute for Horticultural Development, Dept of Natural Resources and Environment, Private Bag 15, South Eastern Mail Centre, Vic 3176 (From Mr to Dr, ex Vic)

Mrs R TALAEI, 117 Dekhoda Ave, Hesar, Karaj, Iran (ex SA)

Dr A YORK, 6 Cope Place, Bulli, NSW 2516 (ex NSW)

(27 June 1996)

Ms JA BEAN, 23 Melbourne St, Karalee, Qld (ex Qld)

Dr T CHURCHILL, Division of Wildlife and Ecology, CSIRO Tropical Ecosystems Research Centre, PMB 44 Winnellie, Darwin, NT 0821 (from Ms to Dr, ex Qld)

Dr GS FARRELL, CSIRO Division of Entomology, GPO Box 1700, Canberra, ACT 2601 (ex NT)

Dr R LAVIGNE, PO Box 1010, Mt Barker, SA 5251 (ex USA)

(1 August 1996)

Ms J BURCHER, 7 Burcher St, Pullenvale, Qld 4069 (ex Qld)

Ms KL HERGSTROM, 18 Watt St, Wonthaggi, Vic 3995 (ex Vic)

Dr PA & JA HORNE, IPM Technologies P/L, PO Box 560, Hurstbridge, Vic 3099 (ex Vic)

Dr SF McEVEY, Entomology Dept, Australian Museum, 6 College St, Sydney, NSW 2000 (correction of address)

Mr M GIBIAN, 7 Chwee Chian Road, #04-11, Wing 1, Banyan, 119749, Singapore (correction of address)

Mr D JACKMAN, c/o Dept of Crop Protection, Waite Campus, PB 1, Glen Osmond, SA 5064 (ex SA)

Ms S ROSARIO, 4 Murray Ave, Mildura, Vic 3500 (ex Vic)

Mr A SAEED, Department of Entomology,

University of Agriculture, Faisalabad-38040 Pakistan (Ex SA)

Mr A SPESSA, Division of Botany and Zoology, Australian National University, Canberra, ACT 0200 (ex Vic)

Mr P WALKER, CSIRO Cotton Research Unit, PO Box 59, Narrabri, NSW 2390 (ex Qld, ACT)

Dr GC WEBB, 235 Gover St, North Adelaide SA 5006 (ex SA)

Mr SL WINTERTON, Department of Entomology, University of Queensland, St Lucia, Brisbane Qld 4072 (ex Qld)

Address Unknown

Mr D C GLENN

FROM THE MINUTES OF THE CORE EXECUTIVE

Vale

The Executive records with regret the deaths of **Dr Elaine Brough**, late President of the Entomological Society of Queensland and respected colleague at Queensland Department of Primary Industries and the CRC for Tropical Pest Management and **Mr Paul NM Forte**, late Foundation Member of the Society, and former State Entomologist, Western Australia.

General

The Executive is pleased to announce that His Excellency the Honourable Sir **William Deane**, AC, KBE, Governor General of the Commonwealth of Australia has formally accepted an invitation to become Patron of the Society.

The Executive has been keeping in contact with Dr **Rowan Emberson** about the Inaugural Joint AES and NZ Entomological Society Conference to be held at Lincoln University, Christchurch, 22-27 August 1996. A number of registrations have been received to date and the Executive look forward to a successful meeting.

The First Edition of the Operational Manual edited by **Paul Madge** has been printed. The Operational Manual details the responsibilities of the Society's Officers and the administrative and financial operations of the Society. Copies will be sent to the incoming Executive to assist in a smooth transition from Adelaide to Brisbane. **Paul Madge** will continue with preparation of a history of the Society for publication in, probably, the February 1997 issue of *Myrmecia*.

The Executive Annual Report is near completion and will be available to members at the AGM. The Treasurer's report and the report of the Business Manager will be completed when the Auditor's Statement for 1995 has been received.

A synopsis of the AES Membership Survey prepared by **John Jennings** appears in this issue of *Myrmecia*, and will be presented to the Joint AES and NZES Conference. Information contained in the Survey will be of use when discussing future directions of the Society, including budget matters (such as support for an increase in subscriptions to facilitate AES functions, and for contracting out some secretarial and financial duties; discussions also included changes to the composition of the Insect Illustration and Photographic Competitions that would significantly reduce their cost). A report on the Survey on Employment of Entomologists in Australia, 1995 prepared by **Peter Bailey** was sent to all respondents; was published in the May 1996 issue of *Myrmecia*; and will be presented by **John Jennings** to the Joint AES and NZES Conference, together with the results of the AES Membership Survey.

The President has chaired Selection Committees for the Ian Mackerras Medal, the Phil Carne Prize and Research Grants. The names of the recipients will be announced at the AGM and the winner of the Phil Carne Prize will present the successful paper at the Scientific Conference in New Zealand.

Nominations were not made for AES Honorary Membership and the Executive is making decisions on the AES Service Award.

Following discussion on a location for the 28th AGM and Scientific Conference, members of the incoming Executive will be approached regarding Sydney, Canberra or Melbourne as likely sites. It is anticipated that a location will be announced at the August meeting.

Referees' reports on the manuscript titled "A Guide to the Management and Curation of Entomological Collections" submitted by **Murray Upton** for consideration for publication as an Occasional Publication, have been received. A summary of these was forwarded to the author with a view to include aspects on computer systems, data bases and quarantine.

It was considered that back copies of the Journal, **Murray Upton**'s "Methods for Collecting..." book, and the Directory of South-West Pacific Entomology, currently in storage, could be advertised on the internet or

placed with Academic Remainders. It was agreed that copies of each of Upton's book and the Directory of South-West Pacific Entomology be taken to New Zealand for sale and for advertising purposes during the AGM and Scientific Conference.

The Membership Survey showed that most respondents (over 75%) supported financial compensation for Society Officers. The level of this compensation and its use will be discussed at the 51st Council Meeting.

A statement from the Auditor has been received and final discussions with her were expected to take place soon. It would appear that this financial year resulted in an improved balance, owing to increased subscriptions and conservative fiscal management. A proposed budget for 1997 has been prepared to assist the incoming Treasurer. It was requested that the Business Manager and Editor of *Myrmecia* provide information on the cost of production, including cost of library subscriptions and reprints, for discussion at the next Council Meeting.

Relevant AES material (Journal, *Myrmecia* and Minutes) will be bound and sent to the incoming Secretary. Older bound material will be sent to **Ian Naumann**, Public Officer, for storing in archives in Canberra. Minutes of Core Executive Meetings, AGM and Council Meetings held so far during 1996 will be forwarded unbound to the incoming Secretary.

The Society has decided to submit a full bid to the Council for International Congresses of Entomology for holding a Congress in Brisbane in the year 2000. India and Brazil will also be submitting bids.

Following discussions with **Tim Heard**, Regional Councillor for Queensland, nominations from Queensland have been received for the next AES Core Executive. Arrangements for the change-over to the new Executive at the AGM in August are continuing.

The Adelaide Executive has held its last meeting and thanks the other Society Officers and members for their support and comments on running the Society. We wish the incoming Executive a successful and enjoyable term of office.

Dr PG ALLEN
Vice-President

Dr G S TAYLOR
Honorary Secretary

From the Conservation Committee

The New South Wales Government is preparing a Biodiversity Strategy, in line with its Nature Conservation Strategy and complementing the National Biodiversity Conservation Strategy. The NSW Biodiversity Strategy is a requirement set out in the new *Threatened Species Conservation Act 1995*, which came into effect on 1 January 1996. The Director General of the NSW National Parks and Wildlife Service is required to establish a Biological Diversity Advisory Council (BDAC) comprising representatives of conservation, industry, science, Aboriginal Land Councils and local government.

The NSW Biodiversity Strategy is being developed with the advice of BDAC, and in consultation with other government agencies, interested groups and the community. A draft version of the strategy is due for release late in September 1996 for comment by interested groups and individuals. Interested groups will be advised of the release of the draft document and advertisements will be placed in major NSW newspapers. Details for obtaining further information and making submissions will be included. The NSW *Threatened Species Conservation Act 1995* includes invertebrates and recognises the diversity of life at the genetic, species and ecosystem level. BDAC and the NSW National Parks and Wildlife Service would welcome submissions from members of the Australian Entomological Society on the draft NSW Biodiversity Strategy. Their address is NSW NPWS, Head Office, PO Box 1967, Hurstville NSW 2220.

Jonathan MAJER
Convenor, Conservation Committee

Survey of Members

The Society has not, to my knowledge, undertaken a survey of members since its inception. The main purposes of this survey, conducted through *Myrmecia* in the first quarter of 1996, were to gather details of members' employment and to gauge their opinion on various financial matters and initiatives of the Society.

The overall response rate was a low 173 (22% of total membership), comprising 147 full-time members (25% of membership), 2 Joint members (25%), 13 retired members (14%), and 11 student

Table 1.1. Current Employment status of respondents (%).

	M.	F.	Sex?	Total
Full-time permanent	71.3	48.3	36.1	60.1
Part-time permanent	0	6.9	2.8	1.7
Full-time contract	14.8	17.2	13.9	15.0
Part-time contract	1.9	10.3	5.6	4.0
Self employed	4.6	0	11.1	5.2
Casual	0	3.4	5.6	1.7
Retired	4.6	0	16.7	6.4
Student	1.5	13.8	8.3	5.2
Other	0.9	0	0	0.6

members (11%). Overseas respondents (2) were not included in the summary. By gender, the response rate was 111 male, 28 female and 34 gender unknown.

Caution should be taken with the interpretation of some responses given the low response rate and the high number of respondents who failed to indicate their gender. It should also be noted that totals may be affected since in some cases respondents gave more than one response or failed to give a response.

In most cases, in the interests of space, only a summary of the results is presented. Also, I have generally refrained from passing comment since the responses are mostly self-evident.

1. MEMBERSHIP

The first section of the survey dealt with members and their employment.

1.1. Current employment status of respondents. (see Table 1.1 above)

Female correspondents are more likely to be employed on a part-time, contact or casual basis than males. Of the respondents in full-time contracts, most were in 1-3 year contracts.

1.2. Employment in entomology.

In response to the question "Are you currently employed in entomology?", 76% of respondents answered yes and 15% no.

Female respondents were less likely to be employed in entomology (66%) compared with males (84%).

In response to the question "Is your main source of income derived from entomology?", 84% of males answered yes compared with 66% of females.

1.3. Gross salary.

Table 1.2 gives a summary of the gross salaries of respondents. Clearly males hold more of the higher paid positions while females, on average, hold more of the lower paid positions. No female respondent earned more than $70,000 while 20% of males were in this bracket.

1.4. Type of employment of respondents.

Table 1.3 shows the breakdown of type of employment of respondents. Most entomologists are still employed by Governments (State and Federal).

Table 1.2. Gross salary (1995) of respondents (%).

	M.	F.	Sex?	Total
<$10,000	1.9	6.9	13.9	5.2
$10-20,000	0	6.9	2.8	1.7
$20-30,000	1.9	13.8	0	3.5
$30-40,000	16.7	27.6	11.1	17.3
$40-50,000	20.4	10.3	22.2	19.1
$50-60,000	13.9	17.2	13.9	14.5
$60-70,000	8.3	6.9	0	6.4
>$70,000	20.4	0	16.7	16.2
no response	16.7	10.3	19.4	16.2

Table 1.3. Type of employment of respondents (%).

	Male	Female	n.a.	Total of all respondents
Uni/CRC	15.6	31.0	20.0	19.1
CSIRO	23.9	10.3	8.6	18.5
Other Comm. Govt.	3.7	3.4	2.9	3.5
State/Territory Govt.	33.0	37.9	22.9	31.8
Museum	4.6	3.4	2.9	4.0
Industry	4.6	0	8.6	4.6
Consultant	6.4	6.9	2.9	5.8
Self-employed	1.8	0	5.7	2.3
Other	0	3.4	2.9	1.2
No response	6.4	3.4	22.9	9.2

1.5. Do respondents expect to be employed in entomology at the end of 1996?

In response to this question, 109 respondents indicated that they expected to be in their current position at the end of 1996 (30 respondents did not answer this question). In addition, 12 respondents were unsure as to their future employment and 22 indicated they would not be employed in entomology. Of these, 7 indicated they would be in a new position in entomology and 10 were unsure. 1 respondent indicated he/she would be in a new position not in entomology (8 were unsure) and 6 indicated they would be retired (1 unsure).

2. THE SOCIETY

The second section of the survey asked a number of questions designed to gauge members' opinions on expenditure, functions and future directions of the Society.

2.1. Proportion of funds expended by the Society.

77% of respondents thought that the proportions of funds expended by the Society were about right or too low, 15% too high and 8% had no opinion. Of the major areas of concern expressed by respondents, 22 respondents indicated that Journal costs were too high, 14

suggested an increase in awards and grants, 8 suggested the Society expend more funds on management and promotion of the Society, and 5 suggested that Myrmecia was too large and expensive .

2.2. Functions of the Society.

Using an optional-preferential system, respondents were asked to rank the major functions of the Society.

The rankings, given in Table 2.1 below, were obtained after analysing the data using the Australian Electoral Commission system for optional-preferential voting. Given the size and complexity of this data, I have only included the final rankings. The Journal and *Myrmecia* were clearly supported by a majority of respondents with the Annual Scientific Conference and Conservation Committee also being well supported. Of the remaining functions, there was little difference between them in their overall support except that the Illustration/ Photography Competitions were clearly ranked last, in fact by 61% of respondents.

Respondents were also asked "Does continuation of membership of the Society depend on maintaining these functions?"

In numerical order, the Journal was listed by 109 respondents, *Myrmecia* (83), Annual Scientific Conference (56), Promotion of Entomology (56), Conservation Committee (18), Research Grants (14), Occasional Publications (13), Phil Carne Prize (7), Mackerras Medal (2) and Illustration/ Photography Competition (1).

Asked if they would support an increase in subscriptions to support these functions, 63% of respondents indicated yes, 35% no.

2.3. Financial and secretarial functions of the Society.

Given the large amount of time devoted by Officers to running the Society, the Executive wanted to ascertain the views of the membership on both contracting out of some services and the payment of honoraria or research grants to Officers.

67% of respondents indicated they would support contracting out financial and secretarial functions of the Society (31% no).

In addition, 77% supported the payment to Society Officers (including Vice-President, Secretary, Treasurer, Journal Editor, News Bulletin Editor and Business Manager) in the form of honoraria or research grants or similar (20% no).

Of those who answered yes to supporting such a payment, 18% indicated support of <$1,000p.a., 42% $1-3,000, 29% $3-5000 and 5% >$5000.

2.4. Alternatives to be considered re funding of Journal (see Table 2.2 over page)

Given that the Journal consumes over 70% of

Table 2.1. Ranking of AES functions by respondents.

Function, Final Rank	
Journal	1
News Bulletin (*Myrmecia*)	2
Annual Scientific Conference	3
Promotion of Entomology	4
Conservation Committee	5
Occasional Publications	6
Research Grants	7
Mackerras Medal	8
Phil Carne Student Prize	9
Illustration/Photography Competition	10

Table 2.2. Alternatives to funding the Journal (# of respondents).

	Yes	No	no response
Increase AES subscriptions	98	59	16
Independent publisher with Journal optional extra	55	66	52
Independent publisher with Journal part of subscriptions	85	49	39
Maintain current subscriptions & reduce other functions	38	80	55

Table 2.3. Support for recent AES initiatives (# of respondents).

	Yes	No	no response
FASTS	129	23	21
Sponsorship	108	40	25
AES publications	147	8	18
Joint scientific conferences	152	8	13

the running costs of the Society, members were asked to consider a number of options in funding the Journal.

Respondents generally support an increase in subscription rates to support funding of the Journal. They also support the possibility of having an independent publisher for the Journal as part of the subscription to the Society.

2.5. Support for recent AES initiatives. (see Table 2.3 above)

Recent initiatives by the Society including associate membership of The Federation of Australian Scientific and Technological Societies (FASTS), sponsorship of specialist entomological conferences and international societies (e.g. ICZN), increasing the range of AES publications (e.g. The Directory of South-West Pacific Entomology) and joint scientific conferences, were all well supported by respondents (Table 2.3).

2.6. Future initiatives. (see Table 2.4 opposite)

Respondents were asked to indicate areas in which the Society might become involved in future. The three areas nominated in the survey were overwhelmingly supported by respondents.

Respondents also listed some additional initiatives to be considered by the Society. These included the Society running workshops, an AES WWW site, public education, media liaison and a certification program for AES members.

2.7. General comments by respondents.

Respondents were invited to make additional comments. Several commented on the Journal, such as "too taxonomic", "slow speed of

Table 2.4. Future initiatives of the Society (# of respondents).

	Yes	No	no response
Employmentissues	152	16	5
Political lobbying	160	10	3
Public issues	153	13	7

publication", "type face poor" and "too many blank spaces". Areas covered by future initiatives (section 2.6 above) were also commented upon by a few respondents.

Finally, I would like to thank all members who responded to this the first survey of members of the Australian Entomological Society. The results will certainly provide the incoming Executive with some food for thought.

John T. JENNINGS
Dept of Crop Protection
Waite Campus, The University of Adelaide

Towards the 4th Edition of the Zoological Code Progress Report July 1st, 1996.

by Alessandro Minelli President of ICZN

A new draft of the International Code of Zoological Nomenclature (hereafter, CODE) has been prepared for submission to the International Commission on Zoological Nomenclature (ICZN) at Budapest (mid August) for formal adoption of the principles embodied therein.

The Editorial Committee (Ride, chairman; Cogger, Dupuis, Kraus, Minelli, Thompson, Tubbs), met at Vicenza, Italy, 24-30 June 1996, and considered comments from more than 200 zoologists world-wide. The following major changes and comments are made in respect to the draft previously circulated to the zoological community.

1. Implementation date of the draft, if acceptable to the ICZN and its parent organisation, the International Union of Biological Sciences (IUBS), will be 1 January 1999.
2. The proposal to require registration of scientific works and names in the Zoological Record was rejected.
3. The provisions to allow the ICZN to give official status to parts of a developing "List of available names" were retained. The Editorial Committee noted the fear of some colleagues that these lists could be accepted as endorsed as official classifications and assures the zoological community that there is nothing in the draft that allows for such an occurrence or interpretation.
4. The limitation of the principle of priority, more properly the reversal of precedence, was retained, but the conditions under which the limitation applies were increased to the use of the junior name in at least 25 works by at least 10 independent authors in the immediately preceding 50 years so long as those works encompass a span of not less than 10 years.
5. The proposals to formally require diagnoses and that they be in languages using the Latin alphabet were rejected.
6. The proposal to require explicit fixation of types for new species-group names was strengthened by requiring that, wherever possible, types be deposited in publicly accessible institutions as is currently required for neotypes.
7. The proposal to abandon the gender of genus-group names and to return to the original spellings of species epithet was rejected. The draft returns to the current wording of the 3rd edition of the CODE. The Editorial Committee, in framing the options presented in the Discussion Draft on this issue, sought to test the proposition that nomenclature, taxonomy and general zoology would be best served by

making the epithets invariate in their spelling. A very large number of respondents interpreted the issue as one of supporting or rejecting Latin grammar in zoological nomenclature. However many zoologists from within the majority supporting Latin, expressed a wish to achieve stability and universality in the spelling of species epithets without abandoning Latin grammar. To this end a proposal was made that the feminine Latin word "species" be implied to exist between a generic name and a specific epithet; epithets, if adjectival, could then be expressed in feminine form. This option could provide a means of verifying proper spelling and for invariance in the spelling of species epithets without a major offence to the tradition of Latin. A majority of the Editorial Committee asks that this proposal be explored further.

Any comment available to the Editorial Committee and the Commission before the Budapest venue will be appreciated.

ICZN Listserver address is:
ICZN-4@cmsa.Berkeley.EDU

Alessandro Minelli's email address is:
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REGIONAL NEWS

NEW SOUTH WALES

Biological and Chemical Research Institute

As this is written we await the report of the Senate Standing Committee on State Development which has been reviewing the decision to close the Institute. It is expected that the committee will conclude that the decision was the wrong one, but the Government has already moved to distance itself from the review, saying it is not bound to follow any recommendation that the committee makes. At the same time, no contract has been signed for any building program to house the expat BCRI staff in their new locations, so all options are being kept open.

All of **Andrew Beattie**'s projects are being transfered to the University of Western Sydney over the next few weeks, although Andrew's own future is still officially uncertain, although that is not necessarily the case unofficially. Presumably there will be more news in the next issue although there is one thing we can be fairly sure about - he won't be setting up shop in Yanco. **Alan Clift** is also playing his cards fairly close to his chest and there are a number of options available to him, both within and outside the Department.

Getting back to the actual work being done - **Peter Gillespie** has taken on the PCR test of fruit fly larvae following the departure of **Michael Gillings** to Macquarie University, to add to his already bountiful responsibilities monitoring adult fruit flies around New South Wales. Proposals to monitor for other exotic fruit fly species around the Sydney district, using Qfly lures, and Western Flower Thrips will require more staff than we have room for - although when the citrus group move out of their nice big lab.....

John Macdonald attended the Mite Training Course in Ohio, in July and is currently at a Blueberry Conference in Maine prior to returning via the joint AES/NZES conference in Christchurch. He has also been successful in getting funds from the Department's R&D Initiatives Account to develop PCR techniques for DNA studies of mites, in conjunction with **Michael Gillings** at Macquarie University.

Alan Clift and **Graeme Baker** will be attending the International Congress in Florence while **Murray Fletcher** will be attending the Claytons International Congress in Christchurch. Murray will present some early results from his ABRS-funded project on the Australian Typhlocybinae. The results will be presented jointly with **Jasbir Mann** and **Selliah Sundaralingam** who are working with him on the project. Murray also attended a DELTA training course held in RSBS, ANU in July. Leafhopper identifications needed around Australia are increasing as interest in phytoplasma transmission expands. Most recently are projects examining grapevine yellows in Southeastern Australia.

Danuta Knihinicki continues with her work on eriophyid mites and will be joint author, with staff of Westmead Hospital Medical Entomology Unit, of a poster paper at the AES/NZES conference announcing a new mite record from Australia.

Mary Ann Terras celebrated her marriage to **Wade Bloomfield** earlier this year by transferring from mushroom pests to Queensland Fruit Fly and is now the manager of the Fruit Fly Factory being established at EMAI, Camden, to supply sterile males for mass release. At present the flies are being produced at BCRI in the old mushroom unit but this will all move when the new building is

completed at EMAI.

Department of Medical Entomology
University of Sydney at Westmead Hospital

Richard Russell is continuing on the production of a coloured photo-atlas of mosquitoes as a supplement to his best selling "Mosquitoes and Mosquito-Borne Disease in Southeastern Australia". Although, for one week in late July, cameras and computers were laid to rest as Richard took to the beaches and bars of Vanuatu.

In July, **Merilyn Geary** attended the Second International Conference on Insect Pests in the Urban Environment, which was held at Edinburgh. While in Scotland, Merilyn also measured the length of the hair of the highland cattle, sampled haggis and slapped on the tartan for a traditional Scottish fling. Merilyn is now preparing a poster on a new exotic mite record in Australia for the upcoming Entomology Conference in New Zealand.

Another staff member in entomology at Westmead Hospital has attempted to reduce the quality of his health even further by enrolling as a PhD candidate. Over the next few years, **Stephen Doggett** will be examining the vector competence of mosquitoes for Barmah Forest virus. Stephen recently managed to strike it lucky by becoming a winner in the CIDM Junior Investigator Awards at Westmead Hospital. His presentation titled "Microsporidia Biocontrol of Mosquitoes. Another Public Health Risk?" managed to net him $500 and will be used to attend an upcoming conference.

Both **Karen Willems** and **Cameron Webb** have recently prepared and completed the annual report on their mosquito investigations at Homebush Bay for the Olympic Coordination Authority and RANAD at Newington. The details of Cameron's research have been compiled as a poster and will be presented at the New Zealand Entomology conference. Cameron is now currently riding the waves off Bali and several of the staff are hoping that he will acquire a dose of dengue fever (a mosquito borne virus) so that he can become a laboratory guinea pig on return.

John Haniotis, along with most of the other staff members, have been preparing abstracts for the Seventh Arbovirus Research in Australia/Second Mosquito Control Association of Australia conference which is to be held in November at the Gold Coast, Queensland. In addition, **John Haniotis** and **John Clancy** are compiling the annual report for our Arbovirus Surveillance and Mosquito Monitoring Program.

CERIT, University of New South Wales

Teaching of the Insect Diversity and Management course has ended for another year. Our thanks to **Fred McDonald** (Syd Uni) who was again responsible for teaching the systematics part of the course, and to **Richard Russell** (Westmead Hospital) who delivered a special guest lecture on mosquitoes as vectors of disease. **Chris Orton** and **Arthur Woods** taught the management aspects of the course which was, again, a big hit with students. Unfortunately, due to the **Amanda Vanstone** cuts, this course which is coordinated by CERIT for the UNSW School of Biological Science, will disappear in 1997 unless some outside funding can be raised to sustain it. **Chris Orton** is honing his skills in writing begging letters!

CERIT has now joined the ranks of entomological institutions who have a presence on the internet. Our home page is located at http://www.unsw.edu.au/clients/unisearch/cerit/index.htm and our email address is CERIT @unsw.edu.au

The staff at CERIT have been busy developing their expertise in termites; with the maintenance of field collected colonies and the carrying out of testing now available to clients. Thanks to the help of AQIS and AMRU, CERIT is now authorised to hold and culture *Aedes egypti*. We have already begun to carry out client testing on this species.

Collaboration continues with UNSW's School of Biotechnology, with several of their students regularly visiting our labs to carry out bioassays related to the toxicity of strains of bacteria against mosquitoes.

Recent visitors to CERIT have included **Andrew Farnham**, formerly of Rothamsted Experimental Station, UK now retired to private consultancy, **Tom Spurling**, Chief, CSIRO Division of Chemicals and Polymers, **Phillip House**, Southampton University, **Robin Gunning**, NSW Agriculture.

Finally the staff of CERIT wish a speedy recovery to their Senior Tech. Officer, **Patrick O'Rourke** who sustained a shoulder injury in a accident while on his way to work.

Steve DOGGETT
Regional Councillor

NORTHERN TERRITORY

This is my last contribution as Regional Councillor. I will be handing over to **Glenn Bellis** (assuming he is elected) who qualified for nomination because he hasn't been insulted in this column yet and has no scores to settle. I would like to thank those entomologists who got their contributions to me on time and on disc for making my job easier. I would like to thank those who were late, illegible or unintelligible for making my job more fun.

Department of Primary Industry and Fisheries Entomology Branch

Graham Young is continuing his IPM trials on Asian vegetables at Humpty Doo, as well as looking at control of *Thrips palmi* with potassium soaps. He has recently returned refreshed after a jaunt to Turkey and Greece, and has been heard raving about pomegranates, retsina, marzipans and the marvels of ancient Turkey.

Speaking of which, **Stuart Smith** has just come back from Mauritius where he was looking at fruit flies. A notable event was the detection in a recently established quarantine grid of a single oriental fruit fly, *Bactrocera dorsalis* (CIE determination). Prompt action by the Entomology Division there probably prevented establishment of the pest on an island which already has far more than its fair share of fruit flies.

Llani Zhang and **Elliott Crowson** are heavily into export certification, monitoring and experimentation with various Asian vegetable crops. **Heather Wallace** has a new colony of the NT fruit fly and now has fruit flies coming out of her ears. She seems to be wearing a new perfume reminiscent of overripe bananas and yeast. **Meryl Robson** of the University of Sydney's Fruit Fly Research Centre visited the Branch during a recent visit to Darwin for a citrus conference.

The mature-age students are back at it after the mid-year break. **Deanna Chin**, **Llani Zhang**, **Heather Wallace** and **Elliott Crowson** are all burning the midnight oil again.

Department of Primary Industry and Fisheries Northern Australia Quarantine Strategy

Glenn Bellis has been on a few trips lately but always looks forward to coming home to be reunited with his wife and their new son who was born in April. In June Glenn went to Brisbane for a meeting on fruit fly monitoring and containment in northern Australia. More recently, he travelled to Jakarta to deliver some computers and training to quarantine authorities. The work was fine and the people were great but he found it difficult to adjust to a city where you cannot see the horizon for smoke. These trips clashed with surveys in which Glenn had planned to participate but he was ably replaced by **Ted Fenner** and **Graham Brown** who both seemed keen to escape from their respective offices and go bush for a few days.

Department of Primary Industry and Fisheries Rangeland Production Branch

Cliff Moran and **John Hoffmann** of the University of Capetown recently visited entomological exile **Debbie van Rangelrooy** in her Tennant Creek Gulag. As part of the self-flagellation that goes with living in the place, Deb had them up at 5 am for breakfast at the delightful Maryanne Dam. All the insects were still in bed, but the visitors were very impressed with the abundant and diverse birdlife.

Deb won first prize for her photography at the recent Tennant Creek show. Perhaps she might try her hand at photographing insects for the next Society AGM? She has just completed an Aussie Host course, which teaches you how to be polite, and she now has a certificate to prove it. Some of the less appreciative victims of this column have suggested that the regional councillor could benefit from such a course.

Department of Primary Industry and Fisheries Weeds Branch

South Africans **Cliff Moran** and **John Hoffmann** toured the countryside researching a new book on biological control of weeds and looking at birds, but not necessarily in that order. They tried to tell us they are not bird fanatics. According to my Concise Oxford, a fanatic is "filled with excessive and mistaken enthusiasm". The prosecution rests its case. **Barbara Waterhouse** had shown them a good time in Mareeba, even taking them diving on the Great Barrier Reef, but she couldn't compete with a Territory itinerary that started with pulling a nice barramundi out of the Finniss River and barbecuing it on the Darwin foreshore at sunset.

Wendy Forno (CSIRO Brisbane) has been a fairly regular visitor over recent months, no doubt hoping to repeat Cliff and John's fishing exploits,

and **Matthew Wienert** (also CSIRO Brisbane) came up with a pocketful of the new *Mimosa pigra* rust fungus, *Diabole cubensis*. We have also begun releases of a new mimosa seed weevil *Chalcodermus serripes*.

Grant Flanagan has been acting head of the Weeds Branch, spending most of his time preparing new weeds legislation. His mother has just come up to visit him for the winter and this year he remembered to pick her up at the airport. It's the sort of thing you'd only forget to do once.

Bertie Hennecke has returned from a couple of months in Europe. He visited his family in Germany and gained quite a few kilos under the influence of mum's home cooking. He dropped in on **Mark Lonsdale** and **Carey Smith** at the CSIRO station in Montpellier, France, **Mark Schwarzlaender** and **Harriet Hinz** at the International Institute for Biological Control (IIBC) in Delemont, Switzerland, and then **Harry Evans**, **Simon Fowler** and **Marian Seier** at IIBC in England. Taking inspiration from the Darwin woman who claims to be the Queen's second cousin and who recently called in at the palace for a cup of tea and a chat, Bertie decided to explore his connections to the German side of the Royal family. We received a postcard from London showing Prince Bertie being enthusiastically embraced by the British public as he enjoyed a glass of schnapps with the rest of his rellies on the balcony at Buckingham Palace.

The Territory teacup has been experiencing unseasonal cyclonic conditions following a story in the NT News in which Bertie was quoted as saying that mimosa would be totally eradicated within 6 or 7 years. We know the biological control program is looking good at the moment, but that good? Bertie explained that he couldn't have said it to the reporter, because he doesn't speak English.

CSIRO Division of Wildlife and Ecology
Tropical Ecosystems Research Centre

The young TERCs have been busier than a tree full of angry green ants. **Alan Andersen** went to Sydney in June to attend a Biodiversity Indicators Workshop for State of the Environment reporting. Since then, with **Lynne Lowe** in tow, he's been running up and down the North Australian Tropical Transect (NATT) putting in the first invertebrate sampling plots from which they hope to gain a predictive understanding of selected groups (ants, spiders, beetles and grasshoppers) in relation to variation in rainfall and soil type. Last week, **Tracey Churchill** and Alan presented papers at the Ecological Society of Australia Conference in Townsville, Tracey on spiders as bioindicators and Alan on the effects of disturbance on seed dispersal by ants.

Next month Alan is off to Brazil for an International Workshop on Rainforest Ants. He is returning via Spain, Portugal and France, where he will wish **Carey Smith** a happy 40th birthday (I hope that's not a secret: just in case it is, promise me you won't tell anybody else).

John Ludwig, a rangeland ecologist, will be joining the lab from CSIRO Canberra to do CRC things, and will be joined by his partner **Ros Blanche** who will be doing some invertebrate biodiversity consulting. In October **Prof John A Wiens**, a landscape and bird ecology guru from Colorado State University, will be visiting TERC for two months as a visiting fellow advising on spatial scaling issues relevant to the CRC. Alan is already the full quid on barramundi scaling issues.

Museum and Art Gallery
of the Northern Territory

An Army Reserve unit on a top secret mission to gain intelligence on mosquito activities was recently skulking around the remote and uninhabited coastline of central Arnhem Land. Uninhabited? Well perhaps, but the jungle has eyes and the jungle names names. The crew, including **Darren Waterson**, a mozzie man from Sydney, ran aground twice and spent two weeks limping back into Darwin on half a propeller. I guess this explains why they only play in the Reserves. The mosquitoes remain uninfiltrated.

Ghost-who-walks **Graham Brown** visited Keep River National Park where he collected some new species of tiphiid wasps. Then he accompanied a NAQS survey along the remote and uninhabited coastline of central Arnhem Land. He was supposed to be searching for exotic insects but all he collected were some more new tiphiids. He had a great time though. The fishing was good, there was some excellent off-shore entertainment put on by the Army Reserve, and the cuisine of mud crabs and buffalo steak was exquisite, although he rather squeamishly declined the side dish of mangrove worms.

Graham has been visited by **Mick Day**, ex of the British Museum, who is doing a revision of the Pompilidae. Together they travelled to Kakadu

National Park where Graham made use of his home-ground advantage by finding more tiphiids than Mick found pompilids.

Colin WILSON
Regional Councillor

S.E. QUEENSLAND

Entomology Department, University of Queensland

The department welcomes **David Merritt**, previously of the University of New England, Armidale, as the new Physiology lecturer. **Margaret Schneider** will be overseas until September visiting Museums and University collections in the USA, Canada and Europe. Margaret intends not only to check holotypes of Australian conopid fly species, but also to look at management practices which may enable university museum collections to better serve the university and wider community. **Marjet Basar** from the Slovenian Museum in Ljubljana will be working with **Gimme Walter** on sound communication in green vegetable bug for the next year. **Qu Juan** from China is visiting for 6 weeks to study homopterous pests of ornamental plants. **Jennifer Marohasy** was in Townsville mid June for the filming of a documentary on what looks like successful biocontrol of rubbervine with the rust, *Maravalia cryptostegiae*, and pyralid moth, *Euclasta whalleyi*, both from Madagascar.

DPI Agricultural Production

Merv Bengston, Pat Collins and **Greg Daglish** (Indooroopilly) attended the International Conference on Controlled Atmospheres and Fumigation in Stored Products which was held in Cyprus, 21-26 April. They also attended a 2 day pre-conference workshop hosted by the Institute for Stored Product Protection in Berlin. Key topics in presentations and discussions included alternatives to the fumigant methyl bromide which is being phased out, and the detection and significance of resistance to the fumigant phosphine. Greg also spent 10 days in China and four days in Indonesia on ACIAR projects involving studies on IPM in grain storage.

Dick Drew and staff in the Fruit Fly Group (now officially Market Access Technology) are still heavily involved in the Papaya Fruit Fly Program. **Bob Corcoran** and **Pauline Peterson** recently spent 5 weeks in Malaysia evaluating current quarantine heat treatments, and on the home front they have been involved in setting up disinfestation programs in Cairns. Dick has been addressing numerous grower, industry and environmental groups about the eradication program and the implications to horticulture in Queensland. **Marlene Elson-Harris, Annice Lloyd** and **Meredith Romig** prepared a Papaya Fruit Fly display for Expo 14 which was held at Gatton from 22-23 May. A visit by Hawaiian fruit fly eradication expert **Roy Cunningham**, and presentations for a Plant Health Committee Meeting and a nationwide Consultative Meeting will occur in May and June.

Frank Page (Applethorpe) is involved in a new collaborative interstate project on Fuller's Rose Weevil in apple orchards. The pest feeds on the margins of leaves causing incomplete defoliation. In recent seasons the weevil has been more prevalent, and the aim is to study its field biology, particularly to determine whether low insecticide IPM practices promote its prevalence. Methods of monitoring and controlling the weevil will be compared.

Expo 14 was held at Gatton from 22-23 May, and this was an opportunity for the Plant Protection Unit to provide information on a number of plant protection issues. This included a display on Papaya Fruit Fly prepared by **Marlene Elson-Harris, Annice Lloyd** and **Meredith Romig**.

CRC for Tropical Pest Management

The IPM Tools for Implementation course ran from 8-19 July. The international short course aims to provide participants with an understanding of approaches, concepts, and techniques that will be of value to them in deciding on IPM research priorities, designing and implementing IPM strategies, and training pest managers and their advisers. There were 20 participants in the course, from 14 different countries. Congratulations to **Larissa Wilson** and the rest of the course team!

The Centre held a celebration BBQ recently at AFRS. The event was to celebrate the formal confirmation of the Centre's extension through to 1998 and the finalisation of the proposal for CTPM-2. The Centre is now gearing up for our 5th year review, scheduled for 3-5 September.

The Centre is holding an EXPO on 12 August, at Emmanuel College, The University of Queensland. EXPO 96 is an open day with poster displays and presentations of Centre activities and research. This will include demonstrations of

Centre software and static displays. If you would like to attend, please contact **Peter Stevens** (07 3365 1574).

Visitors to the Centre in August include **Prof. John Hay**, UQ Vice Chancellor, and the Board of GRDC.

Tim HEARD
Regional Councillor

USDA
Australian Biological Control Laboratory

In July, we sent our first shipments of two new potential melaleuca biocontrol agents to quarantine in Florida. These were the psyllid, *Boreioglycaspis melaleucae* and a leaf-blotching mirid, *Eucerocoris suspectus*. Despite some concern over the ability of these insects to survive the 4-5 day journey to quarantine, the insects arrived in good shape. Four insects for possible use against melaleuca are now in quarantine, with the first of these, the weevil, *Oxyops vitiosa*, hopefully being released in the field very soon.

One of our Townsville-based researchers, **Jeff Makinson**, has transferred to our Brisbane laboratory at CSIRO Long Pocket.

Queensland Museum

During the colder months, most of the staff of the Entomology and Arachnology sections, like their organisms of interest, seem a little torpid so there's not much to report.

Geoff Monteith will attend the International Congress of Entomology in Florence where he will present two papers, one on his sampling work in the Wet Tropics, the other on his program of educational entomology workshops for teachers. **Susan Evans** will travel to Canberra in September to attend the ANIC Technical Training Course.

Chris Burwell is helping the Queensland Art Gallery assemble a piece by Japanese artist **Yukinori Yanagi** for the upcoming Asia-Pacific Triennial of Contemporary Art. The artwork will consist of the flags of 49 nations bordering the Pacific Ocean made from coloured sand in transparent boxes interconnected by plastic tubing. A colony of meat ants, *Iridomyrmex purpureus*, will be introduced into the work and tunnel through the flags for the 4 month duration of the exhibition.

Robert Raven ran a course on spiders for 20 people over 3 days in June in Hobart for the Tasmanian Department of Forestry. Robert is presently working on 3 genera of ground hunting spiders, belonging to the family Miturgidae, which are particularly diverse in the Wet Tropics.

Department of Primary Industries, Toowoomba

Toowoomba staff have been busy with meetings over the past month. **Dave Murray**, **Gordon Simpson** and PhD student **Rob Annetts** travelled to Narrabri for the Annual Program Review of the CRCSCP on 11 and 12 June. Newly appointed entomologist at Emerald, **Richard Sequeira**, also attended with the Toowoomba staff.

Bernie Franzmann and Indian visitor **Hari Sharma** attended the meeting of the group involved in the GRDC program Crop Improvement of Grain Sorghum in Australia. This was held on the 24 and 25 June at Bribie Island.

A major reshuffling of the insect colony rearing work has occurred. **Angela Doherty** has departed, leaving the braconid wasp rearing to **Sue MacLean** who also looks after the *Trichogramma* colonies. Sue will also be doing further rearing work with the other Lepidoptera under **Kerry Rynne**'s supervision.

John McAlpine, who did all the metal fabrication and equipment maintenance for **Brad Scholz**, has left. His departure leaves a large hole in the *Trichogramma* project that can't be filled for lack of funds.

Department of Primary Industries, Applethorpe

Frank Page attended a meeting of pome fruit entomologists at the Institute for Horticultural Development, Melbourne, on 17 - 18 July. Project leader, **David Williams**, chaired the meeting at which progress with the HRDC funded WWAAPM (weevils, woolly apple aphid and powdery mildew) PROJECT was discussed and plans for next year were decided upon. Others present were: **Stewart Learmonth** (W.A.), **Bill Washington** (Vic - Plant Pathology), **Nancy Endersby** (Vic), **Adrian Nicholas** (PhD student WAA studies Bathurst), **Rob Spooner - Hart**, (University of Western Sydney), **Richard Vickers** (CSIRO Brisbane), and **Henry Kotula** (Evergreen Marketing Pty Ltd WA).

Department of Primary Industries
Rockhampton

Rod Elder and **John Olds** (Department of Environment) in conjunction with the Tooloola High School at Gladstone are undertaking 6 monthly surveys of *Pisonia grandis* decline and

replacement by other vegetation at Tryon Island, a coral cay close to Heron Island in the Bunker group. The pisonia trees are disappearing from the island due to a severe infestation of the scale *Pulvinaria urbicola*. This infestation has lasted 3 years in spite of an active parasitoid complex. The scale occurs on other islands of the Bunker group but populations are at very low levels. *Pisonia grandis* is usually the dominant tree on coral cays.

Private Sector

Bugs for Bugs will host the annual meeting of Australian Biological Control (ABC) at Mundubbera in early August. Since the inaugural meeting was held at the Bugs for Bugs insectary in September 1992 subsequent meetings have been held at each of the other member organisations: HIPMS, Sydney 1993; Biological Services, Loxton 1994; Bioprotection, Warwick 1995.

Ian Common has been awarded the prestigious Karl Jordan Medal by the Lepidopterists' Society for his published research on the Australian Lepidoptera. This is an international society with some 1600 members who have private or professional interests in Lepidoptera. The society is based in the USA and this year's award was to be presented at the Annual Meeting and Conference held in June at Houston, Texas. Ian and his wife, Jill, had planned to attend the meeting for the presentation but, unfortunately, Ian suddenly required emergency surgery a few days before his departure. He is now recovering and has received the award by courier.

Gordon SIMPSON
Regional Councillor

SOUTH AUSTRALIA

University of Adelaide

Wanja Kinuthia has finished her Ph.D. thesis under supervision of **Otto Schmidt** and returned to Kenya, where she hopes to join the Kenya Trypanosomiasis Research Institute to study surface gloycosylation properties of trypanosomes in insects and vertebrate hosts, hopefully funded by a Rockefeller Foundation grant.

Iqbal attended the recent DELTA workshop at CSIRO Entomology and is now keen to use the program to produce keys and species descriptions in his Ph.D. project on the systematics of Australian baeine wasps. **Azhar Saeed** has submitted his Ph.D. thesis on the systematics and phylogeny of *Diolcogaster*, a genus of Braconidae, and has returned to a lectureship at the University of Faisalabad, Pakistan.

Congratulations to **Lynne Grbin** and **Scott Field** on their recent postdoctoral awards. Lynne will join the CRC for Tropical Pest Management as a postdoc after completing her thesis on effects of parasitoids on selection for resistance to *Bt* in lepidopteran larvae. Scott was awarded the Golda Meir Fellowship and will work at the Hebrew University in Jerusalem next year. He is currently completing his thesis on agonistic behaviour of *Trissolcus basalis* defending patches of host eggs. Scott also helped the ABC Natural History Unit to film the transvestite behaviour (female mimicry) of male *Cotesia rubecula*. Look for this on TV in early 1997. **Mike Keller** spent three months of study leave at Université Claude Bernard in Lyons, France where he worked on patch time allocation in the parasitic wasp *Leptopilina heterotoma* with **Frédéric Fleury** and **Michel Boulétreau.**

Dr. A Evans of the Scottish Agricultural College, Edinburgh visited **Dudley Pinnock** to learn first-hand about his work on the microbial control of sheep ectoparasites. Congratulations to **Alex Arellano**, formerly of the Insect Pathology Lab., on his appointment to Southern Cross University. Alex is continuing the collaborative project with Prof. Pinnock on *Bt* toxins.

SARDI Entomology Unit

International visitors to the Unit in recent months have included **Dr Jordi Izquierodo**, of the University of Llerida, Spain, who discussed the biocontrol of various weed species with **Peter Bailey**, **Dr Simon Lawson**, of the University of Tsukuba, Japan, and **Professor Liu Shu-Sheng** of the Department of Plant Protection, Zhejiang Agricultural University, China. **Serge Bourtourlinsky**, of Total Oil Co., France, visited the unit in the company of **Geoff Furness** of the Loxton Research Centre, where they discussed the field and shed application of oils to citrus with **Greg Baker** and **Peter Taverner**.

In mid-February, the unit hosted a gathering of Diamondback moth (DBM) researchers, including **Bronwyn Holding**, **Richard Vickers**, **Peter Ridland**, **Nancy Endersby**, **Rick Rousch**, **Mike Keller**, **Greg Baker** and various postgraduate students. More recently, Greg and Rick have trialed some serious hardware in their research

efforts, including night-vision goggles, and what amounts to an oversized Electrolux which literally sucks DBM out of Brussel sprouts crops.

A workshop on the biocontrol of Paterson's Curse and thistles was held at the Unit on 2-3 April, with representatives from CSIRO, NSW Agriculture, Keith Turnbull Research Institute, WADA and SARDI attending. The workshop, funded by AMLRDC and AWS, was followed by a field tour the following morning. At a meeting in Horsham on 15-16 April, **Dennis Hopkins** and **Greg Baker** discussed latest developments and future research plans in field crop entomology with **David James**, **Melina Miles** and **Garry McDonald**. Greg attended a meeting at AQIS, Canberra, in mid-July where various quarantine issues were thrashed out.

Peter Taverner spoke at a series of grower/packer meetings in the Sunraysia and MIA districts in early April on Australian exports of citrus to the USA, and on the planned introduction of oil post-harvest treatment techniques to local packing sheds. In late-June **Andrew Green**, of the SA Citrus Board, and **Bill Frost** spoke at a Citrus Industry Seminar at Berri, which coincided with the visit to Australia by **Karen Darling**, the United States representative of the Australian Horticultural Corporation, and **Bob Egan**, of DNE World Fruit Sales, New York.

Jorg Kitt has wrapped up his European wasp baiting project, and is now trying his hand at the integrated control of mealybugs at Loxton. Early indications of the establishment of *Coccophagus gurneyi*, a parasitoid of citrophilous mealybug, are promising, with the recovery of 3 specimens at Loxton three months after the parasitoids' release.

Ken Henry has released *Mogulones larvatus*, a biocontrol agent of Paterson's curse, at 23 sites in the higher rainfall areas of SA this autumn. All of last year's release sites have shown signs of the weevil's establishment, the most promising of which being at Kingston in the state's South-East. Ken will attend a dock workshop in Perth in August, where techniques to assess the establishment of clearwing moth will be discussed. Meanwhile, **Dennis Hopkins** and **Gabriella Caon** have established a lab culture of *Trichogramma* collected from *Helicoverpa* eggs on tomatoes in the northern Adelaide Plains.

SA Museum

Archie McArthur has been hot on the trail of the 'dinosaur ant' *Nothomyrmecia macrops*. *Nothomyrmecia* was first described by John Clark of the National Museum of Victoria in 1934 and its significance in the phylogeny of ants was soon recognised. It eluded all attempts to find it until it was rediscovered by Bob Taylor in 1977 in a small area at Poochera on SA's Eyre Peninsula. In 1995 a team from the South Australian Museum set out to determine the distribution of the ant in South Australia. The team was fortunate to have the advice of **Bob Taylor**, who had previously made a study of its behaviour, and also from the **Rev. Bede Lowery**, who had used honey extensively to collect ants. In July, in company with Bob, the team visited a heritage listed site on the property of **Ken Mudge**. Here they observed the ants at night, and placed honey, meat and peanut butter baits on the trunks of mallees at about eye height. *Nothomyrmecia* appeared to be most interested in honey.

In October, a larger team from the SA Museum returned to the site. In late afternoons diluted honey was painted onto mallee trunks in the surrounding area, taking care to mark the traverses. Then after dark the search for *Nothomyrmecia* began by examining the honey baits, where occasionally one to five could be found. In one instance about 30 specimens were at a bait. Many other species of ants, including *Camponotus* and *Meranoplus*, were collected from the honey. Other techniques trialed in the search for the ant included beating the upper foliage of mallee and applying 'tanglefoot' around the trunks, but honey baits were most productive. As a result of this collecting, the known distribution of *Nothomyrmecia* extends from Penong in the west to Lake Gilles in the east, a distance of 200 km.

Australian Quarantine Review Committee

Peter Allen has been appointed to the Federal Government's Australian Quarantine Review Committee. The Committee will be conducting an independent scientific review of Australia's quarantine arrangements. The review will include public hearings around Australia and overseas. The report is to be submitted to the Minister for Primary Industries and Energy by 1 October 1996.

SA Water

At the Australian Water Quality Centre there have been a couple of movements other than those in the Bolivar treatment ponds. **Vladimir**

Tsymbal has been appointed as a biologist to work on the National River Health Program, and joins **Chris Madden** to make a team of two again. The project is in limbo waiting for funding decisions in the federal budget, but meanwhile there are only 350 samples left from the first survey to sort! Vladimir first came to Bolivar on work experience as part of the English course he was taking. He has been in Australia for about two years after moving with his family from the Ukraine. Vlad became very familiar with SA macroinvertebrates while working with **Peter Schultz** on samples from various rivers around Adelaide, and leaves him just as he is expanding his workload with more biomonitoring of local streams to investigate possible affects of sewage treatment works, mines and feral plant clearance. Much of this is now required under licences issued to SAWater by the state EPA.

Another new face is **Peter Horne**, who is spending a few weeks cataloguing the voucher collection of invertebrates at the Centre. Many groups have been found to have too many or too few or poorly identified specimens but the listing will be a good start to improving the collection. Another job for a freshwater biologist may be appearing in the newspapers soon. **Peter Goonan,** aquatic biologist with the South Australian EPA, is back at work part-time after his car accident in May. He hopes to be partaking of field work again in the not too distant future.

Consultant Entomology

In SA's South-East district, bluegreen aphids have been unusually prevalent in ripening lucerne seed crops at the end of March/early April. Although no damage was anticipated, control was needed in some instances to allow easier harvesting. No other pest problems have been detected in the district this year, but with the seasonal break underway at present many will undoubtedly return to their usual haunts. In other news from **James De Barro**, he and his wife Tania now have a healthy and beautiful baby daughter; Danielle.

Bill FROST and Mike KELLER
Regional Councillors

VICTORIA

Keith Turnbull Research Institute
Department of Natural Resources and Environment

Reorganisation of the new mega-Department, Natural Resources and Environment, is proceeding rapidly. KTRI fits into the new structure amongst the (former) Agriculture Victoria research institutes. We will be working increasingly with Ag Vic people such as **Mali Malipatil**, who recently visited in relation to the AQIS review in which **Fred Neumann** is involved. There have been some significant changes to our personnel. **El Bruzzese** is currently acting Manager. **Raelene Kwong** is Acting Leader of Biocontrol Services Victoria.

Nicole Freeman has taken up a position in Biocontrol Services Victoria until the end of 1996. She will be working on the English broom biocontrol program and assisting in general extension activities. Nicole has a Bachelor of Applied Science in Environmental Management from Deakin University and has recently worked with the Westernport Catchment and Land Management group of the Department.

El Bruzzese, **Ian Faithfull** and **Gordon Berg** of Agriculture Victoria attended a field day at Yambuk with the St Helens Shelterbelters, a Landcare group funded by the Meat Research Corporation to release the Moroccan clearwing moth, *Chamaesphecia doryliformis*, a biocontrol agent for docks (*Rumex* spp.). An independent consultant, Keith Cummings, is overseeing the project. **Geoff Strickland** of the Western Australian Department of Agriculture has invited El, Ian and **John Weiss** to attend the workshop on dock biocontrol in Perth on 27-28 August. Ian will be continuing the distribution of the dock moth in Victoria. Although this insect is slow to establish, it is now making a big dent in dock populations in WA.

John Weiss is leader of the national program on biocontrol of horehound and has recently received permission to release the horehound clearwing moth, *Chamaesphecia mysiniformis*, which is closely related to the dock moth. He is particularly interested to learn about the techniques used for mass rearing clearwing moths in WA. A shipment of the horehound clearwing moth sent by **Jean-Louis Sagliotto** is currently in quarantine at KTRI. A shipment of *Melagithes* is expected shortly. This insect will be host specificity tested in conjunction with the workers at Montpellier. A Spanish strain of the plume moth, *Pterophorus spilodactylus*, is expected to be released in the Mallee in NW Victoria next summer.

Rachel Melland is continuing work on host specificity testing of the boneseed *Tortrix* moth. **Robin Adair** and Rachel will visit Canberra in August for discussions with **Penny Edwards** and **Marianne Horak** on the protocols for host specificity testing of *Tortrix* in South Africa. This insect appears to be completely host specific in the wild but is annoyingly polyphagous under quarantine laboratory conditions at KTRI. Penny will be conducting the testing in South Africa. Robin along with **Royce Holtkamp** (NSW Ag) arranged the first Australian release of *Mesoclanis polana*, one of the boneseed seed-flies, at Dunbogan Beach, NSW, in early July. Another seed fly, *M. magnipalpis*, from **Petra Muller** in Capetown is to be reared here at Frankston. The black boneseed beetle, *Chrysolina* sp., is still being mass reared and released by **Franz Mahr**. At Tullamarine, near Melbourne, all life stages are present and the beetle now has a persistent presence.

Greg Lefoe and **Jenni Carruthers** are currently rearing the elm leaf beetle parasitoid, *Erynniopsis antennata*, a tachinid fly, after importing a batch from the USA.

Institute for Horticultural Development

The Western Flower Thrips is in the news in Victoria since **Mali Malipatil** identified some in early July in a sample of glasshouse-grown ornamental plants from a nursery on the outskirts of Melbourne. A team of over 20 IHD staff actively participated in extensive surveys of nurseries and retail outlets in the Melbourne area to determine the spread of the pest and possible source of infestations. Other entomologists who participated in the survey work included **Peter Cole, John Curtis, Kylie Moritz** and **Peter Ridland.**

Mali, assisted by **Alison Medhurst**, has been kept busy checking the large number of sticky traps and samples brought in by the various survey teams from around the state for the presence of WFT.

Peter Williams represented the Department at the National Working Party on Grain Protection Meeting in Sydney on 4 - 5 June. In July, Peter visited the Division of Entomology CSIRO for a planning meeting for the Wildflower Fumigation Project, with **Jan van S. Graver**, **Gaye Weller** and **Jonathon Banks**.

Mark Smith reports that research at IHD now has a large wine grape component. A new project has been started with GWRDC to extend IPM in wine grapes ('research to practice'). The lightbrown apple moth identification card in 'The Hip Pocket Collection' developed by **Jan Strawhorn** has been a big hit. Demand from Orlando, Cropwatch, Southcorp and others has led to another production run of 2000 copies. Mark has also recently spoken at a seminar series in SA vineyards sponsored by Elders. Both **Michelle Warren** and **Mark Smith** spoke at 'Agrochemicals in grapes' at Mildura in May. Visitors to Mark's team were **John Runting** (Red Hill Estate), **Kieran Murphy** (SpraySearch), **N. Stone** (AgrEvo) and **James Cathcart** (Sandoz).

David Carr (Silvan) and **Helen French** (SpraySearch) visited IHD in April to discuss results of 95/96 field trials in pome fruit. The final draft of the AFI funded project publication "Pests, predators and parasites of pome and stone fruit - a pocket guide" has been completed. This work is authored by **Mali Malipatil**, **Alison Medhurst**, **Vicki Bates** and **David Williams** and should be at the printer in a few weeks.

Nancy Endersby and **James Miller** travelled to Brisbane in July to speak at the 1996 National Vegetable & Potato Industry Conference "VEGTEC 2000" run by AUSVEG (Australian Vegetable & Potato Growers Federation). Their presentations were entitled "*Plutella* - a resistant pest" and "Western Flower Thrips - threat to vegetables". Nancy then went on to DPI Gatton to catch up with the brassica IPM people: **Bronwyn Houlding**, **Peter Deuter** and **Sue Heisswolf**.

A project meeting for the WWAPM: Integrated Management of Weevils, Woolly Aphid and Powdery Mildew project was convened by David Williams at IHD. Those in attendance were **Stewart Learmonth** (WA Department of Agriculture), **Frank Page** (QDPI), **Robert Spooner-Hart** (UWS), **Adrian Nicholas** (Bathurst), **Richard Vickers** (CSIRO), **Henry Kotula** (Evergreen Marketing International P/L), **Paul Horne** (IPM Technologies), **Bill Washington**, **John Curtis**, **Fran Richardson** and **Nancy Endersby** (all IHD).

Paul and Janet Horne and **Cindy Edward** have left Agriculture Victoria and established their own company called IPM Technologies. They hope to continue with their work on biological control and IPM in a range of crops, including field crops, potatoes and pastures. As the name suggests, they hope to concentrate on integrated pest

management, and cover monitoring, research and rearing of beneficial insects. They can be contacted at PO Box 560 Hurstbridge, Vic. 3099.

Nancy ENDERSBY and Robyn COY
Regional Councillors

WESTERN AUSTRALIA

Agriculture Western Australia

Ian Dadour, **David Cook** and **Francoise Berlandier** are off to Florence, Italy for the XVIII International Congress of Entomology in August. Ian and David will be presenting talks on both anthelminthic drugs and their effects on dung beetles, and mate choice and sperm transfer in the Australian sheep blowfly. Francoise will present a paper on management of aphids in lupin crops.

Stewart Learmonth beat the cool weather of Manjimup when he attended the Vegtec 2000 Conference in Brisbane in July. He also took the opportunity of catching up with **John Rogers** of CRCTPM at Qld University to discuss scarab beetle research. Following this thawing out, Stewart then braved Melbourne's winter to attend a WWWAPM workshop - this isn't an aggressive approach to pest control, but the acronym for a collaborative project on weevils, woolly apple aphid and powdery mildew of pome fruit. Entomologists **David Williams, Frank Page, Nancy Endersby, Adrian Nicholas, Richard Vickers, Rob Spooner-Hart, Jon Curtis**, Private Consultants **Paul Horne** and **Henry Kotula** and Plant Pathologist **Bill Washington** were in attendance.

An Argentine ant eradication trial using baits with slow acting stomach poisons has been highly successful. A 24 ha infestation has been reduced to a few isolated surviving colonies. The bait matrix, which was developed by the Social Insect Research Section (SIRS) (**Peter Davis** and **John 'Mongoose' van Schagen**), contains hydramethylnon and sulfluramid as toxicants and proved highly attractive to the Argentine ants. SIRS is expanding into termite research, especially in relation to those species that attack structural timber, including *Mastotermes*. As with the other ants, the emphasis is on bait development and evaluation.

European wasps have been a popular news item. Two *Vespula germanica* queens were picked up in cargo from Melbourne and two *V. vulgaris* queens were found on some timber from New Zealand. The massive publicity campaign has so far succeeded in preventing the European wasp from establishing in WA.

Finally, we note with regret the passing of **Paul Forte**. Our sympathy goes out to his wife and family. An outline of Paul's contribution to entomology and his career will be compiled for the next issue of *Myrmecia*.

Curtin University

Jonathan Majer recently returned from Switzerland where he attended the conference on "Restoration for Sustainable Development". In keeping with his mission to firmly convince people that invertebrates are an important part of environmental management, he presented a paper on current developments with the use of invertebrates in restoration within Australia. However, it turned out that 33% of the papers made at least some reference to invertebrate work - perhaps things are changing at last!

Jonathan then visited Bahia in Brazil where he conducted a small project with **Jacques Delabie** of the Brazilian cocoa research centre on the influence of edges of Atlantic rainforest on ant community composition. This is now being written up and will be presented at the August international workshop on "Monitoring rainforest litter ants", to be held in Ilheus, Bahia. Meanwhile, back at the lab, **Ann Noack** continues to sample invertebrates and characterise habitat along road verges near Kellerberrin in order to see why White-crowned babblers are found along some verges and not others. Finally, based on their eucalypt canopy study, **Harry Recher** (Edith Cowan University) and Jonathan have reached some startling conclusions about terrestrial arthropod diversity in Australia. Watch the November issue of *Geo* for an explanation of the findings.

University of Western Australia

Ian Dadour has commenced work on a 3 year ARC Collaborative Research Grant at University of WA. The ARC Grant is in collaboration with **Win Bailey** (Zoology, UWA), **John Considine** (Horticulture, UWA) and **David Cook** (Agriculture WA) on "Improved management and control of western flower thrips in Australia".

David COOK
Regional Councillor

OVERSEAS NEWS

NEW ZEALAND

A potentially economically devastating 'invasion' of fruit fly in the Auckland area has hopefully been contained, thanks to an alert and capable Border Protection Service. During early May, 1996, two male fruit flies identified as Mediterranean fruit fly (*Ceratitis capitata* [Diptera: Tephritidae] or "medfly" for short), were collected from a trimedlure trap in Mt Roskill. During the next two weeks, further flies were trapped. This and subsequent medfly finds in the same immediate area have triggered a containment and eradication program implemented by the Ministry of Agriculture.

To date the eradication program has cost in the vicinity of $4,000,000 but is well worth it, according to government sources. Fruit is a major export earner for New Zealand and the accidental introduction of these pests would be devastating. The courts are recognising the seriousness of the offence of smuggling fruit into New Zealand and one American couple was recently fined $10,000 for trying to bring fruit in from Australia. In this particular case, the fruit (a mango) was heavily infested with fruitfly.

Despite the efforts of our early settlers to introduce just about everything, a number of unpleasant insects and diseases never ever made it - probably more by good luck than management. However, with modern high speed travel, it is increasingly difficult to keep these pests at bay.

Fortunately the government recognises the problem and has stepped up surveillance.

Look forward to seeing you all at the Christchurch Conference.

John TENQUIST
Overseas Correspondent

PAPUA NEW GUINEA

Pheromones and Pathogens - At the mid-term research review of the Cocoa Coconut Research Institute held on 23rd May, **Bob Prior**, Head of Entomology Division reported the use of pheromones (incorporating a pathogen) to lure and infect the *Oryctes* pests of coconuts. Although claimed as a "first ever" for the combined use of a pheromone and pathogen in pest management, Bob was counselled to have a computer-line search done before presenting his papers at the forthcoming International Entomology Congress in August. But Bob did ask what the Index descriptors were!

Entomology staff at last for the Universities - Dr **Kevin S. Powell** arrived in Lae to commence a 3-year tenure at the Department of Agriculture. Kevin was formerly located at the University of Durham and worked on rice insects under a Rockefeller Foundation project.

Ray Kumar completed a six-year spell at the Department of Agriculture and Livestock, Konedobu, to return to Academia. He will be teaching Entomology and Genetics at the Biology Department, University of Papua New Guinea and hopefully organise a Masters Program in Entomology.

The Universities are naturally delighted to fill the chronic gaps in their teaching programs but, alas, the RASCAL problems at University campuses won't go away. How long the families of the staff will survive in the campuses is anybody's guess.

Queensland Curator visits DAL - **Margaret Schneider**, Curator, Department of Entomology, University of Queensland, visited Port Moresby from 22-25 April. She was invited by the AusAID-funded Agricultural Quarantine Support Project to determine the entomological needs of Agricultural Quarantine Officers.

Margaret met with DAL administrators and scientists and called on Professor **Ray Kumar** at the Publications Section. She is expected to present a week-long entomology course tailored to the needs of Agricultural Quarantine Officers in February 1997 at UPNG.

Thanks to Margaret's visit, a proposal has been made to rehouse the extensive DAL Insect Collection at Konedobu in an air-conditioned building. Who will curate this large collection is likely to remain a mirage.

Ray KUMAR
Overseas Correspondent

NEWS FROM AFFILIATED SOCIETIES

Entomological Society of Queensland Inc

The winner of the 1996 Student Award was announced at the May meeting. **Andrew Loch**,

from the Entomology Department, University of Queensland, won the award for his Honours thesis entitled "Outbreaks of Pink Wax Scale, *Ceroplastes rubens* Maskell (Hemiptera: Coccidae) on umbrella trees: abundance, persistence and parasitism". Also at the May meeting **Dick Drew**, in his talk "Papaya fruit fly in Queensland" gave a thought provoking analysis of the fruit fly problem, future surveillance and the possibility of eradication.

At the June notes and exhibits meeting, **Andrew Loch** was the first speaker, discussing the work which won him the Student Award. **Geoff Thomson** from the Queensland Museum talked about and showed some of the magnificent entomology books in the Museum's collection. **Chris Lambkin** displayed her own and **Geoff Thompson**'s prize winning illustrations from the Entomological Society of NSW competition and described the technique used to paint an undescribed species of *Exoprosopa* (Bombyliidae). **Richard Piper**, a North Queensland member, has recently produced a poster on insect and mite pests of bananas, which was displayed. The well illustrated, laminated poster is for use in packing sheds, to assist awareness of pest problems.

Judy KING
Representative Councillor

FASTS NEWS

(Federation of Australian Scientific and Technological Societies)

MAY NEWS

1. Working with the new Government

There is a war of rumour and speculation in government circles in Canberra, and it will continue right up to Budget Day on August 20. It is a time when kites are being flown and waters tested, to gauge just what reaction unpopular policies are likely to get.

The Government is walking a thin line. It came to office promising new standards of honesty and probity, and saying that all election promises would be honoured. Now there are strong messages coming out that these promises are being reviewed, in light of the $8 billion "black hole".

It is in danger of being tagged "just another Government."

Ministers are confirming nothing and denying nothing, using the standard line of all Governments that things will be made clear on Budget night. And in some cases it seems that Ministers are trying to cause the maximum disturbance and uncertainty in their portfolio areas - the University sector is one such case.

Minister for Science **Peter McGauran** has charted a safer path. FASTS has found him open to suggestions and ideas, even if he is not able to give pre-Budget commitments. Other science groups have also been impressed with his handling of the portfolio to date.

But as FASTS said to Minister McGauran last week, the real judgement will have to be reserved until Budget night, when the S&T community finds out how successful he has been in protecting his portfolio against the economic rationalists in Treasury and Finance.

2. Protests and actions

The FASTS media conference at Parliament House on Friday May 31 brought together science groups and the National Farmers Federation to ward off rumoured cuts to S&T funding.

This sort of "third-party endorsement" by the NFF of the value of S&T is particularly important in Budget discussions, and avoids the charge that science and technology are self-serving.

The event was a major news item on television news that night, featuring on ABC and Channel 9 and 10 news through the evening. It was on radio news, and gained some print media coverage.

Spokespersons were: Dr **Joe Baker** (FASTS), Dr **Wendy Craik** (National Farmers' Federation), Dr **Ray Akhurst** (Aust Soc of Microbiology), Professor **Derek Robinson** (Aust Mathematical Society and AMSC), Professor **Bob Crompton** (Aust Institute for Physics), Dr **Keith Boardman** (Academy of Science), Dr **Mark Sceats** (CRCs Association), Mr **Robin Groves** (Aust Science Teachers Assoc), Dr **Graeme Mann** (Aust Soc for Medical Research)

3. University Challenge

The University sector also held a highly successful media event in Parliament House on Monday May 27, with FASTS playing a prominent role in putting the event together. The creation of an historic Alliance of students, staff and administrators was announced, with all groups joining to protest threatened cuts to the University sector.

The event captured a colour photo on the front page of the Sydney Morning Herald, and coverage in other major papers. My advice to the Minister to heal the rift between herself and the University sector was carried in the Canberra Times and the Age.

Further actions are planned by the Alliance, including a Press Club lunch, close lobbying of MPs, and other media events.

4. Revised Policy Document

Thanks all the Members who commented on the draft Policy Document circulated last month. It is in its final stages of preparation, and I hope to see as many as possible of you at the launch on June 18 in Canberra.

It will be a good opportunity to indicate the strength of the S&T community to our new Minister, and to meet others with a strong interest in science and technology.

5. FASTS on the Web

The FASTS Web page contains all the basic information, including a list of Member Societies, contact points, the Policy Document, relevant speeches by politicians, and copies of our media releases.

It also indicates links to the Web sites of our Members Societies. If your Society has a Web site and it is not listed, let Graham Johnston know! He has generously volunteered to look after the FASTS site, and his address is:
grahamj@extro.ucc.su.oz.au

The Web address is:
http://bimbo.pharmacol.su.oz.au/fasts/fastshome.html

6. ANZAAS Congress in Canberra

I have been asked to Chair the final plenary session, to bring together a day-long discussion on science policy. A range of prominent speakers is offering their thoughts on how S&T can best be utilised by Australia.

Minister McGauran will be there, and the aim of the discussion is to suggest policy directions for the Government to consider.

7. Parliamentary Standing Committee on Industry, Science & Technology

Membership of this Parliamentary Committee was announced on Friday, and is Hon B. Reid (Lib, Bendigo) Chair, Mrs F Bailey (Lib, McEwan), Mr R Baldwin (Lib, Paterson), Hon D Beddall (ALP, Rankin) Deputy Chair, Mr R Broadbent (Lib, McMillan), Hon M Evans (ALP, Bonython), Mr R Evans, (Lib, Cowan), Mr J Forrest (Nat, Vic), Ms T Gambaro (Lib, Qld), Mr H Jenkins (ALP, Scullin), Mr A Morris (ALP, Newcastle), Mr P Nugent (Lib, Vic), Mr G O'Connor (ALP, Corio) and Mr P Zammit (Lib, NSW)

8. Meeting our Members

I have had good meetings this month with members of the Australian Institute for Mining and Metallurgy, the Australian Society for Medical Research, and other groups involved in the media conference at Parliament House.

Please contact the FASTS office if you would like to arrange a meeting. At various times in June I will be in Sydney, Ingham, Townsville, Brisbane, Hong Kong and Bundaberg.

JUNE NEWS

The updated FASTS policy was launched on June 18 at Parliament House, and a copy formally presented to **Peter McGauran**, Minister for Science and Technology. It all went pretty well - the new policy was printed in time, there was a good audience of between 50 and 60 and a reasonable media turnout.

I will be mailing out two copies of the Policy to the official address of all Member Societies on Thursday June 20, along with copies of the accompanying media release and an explanatory note about the new sections.

The Policy has been posted on the Web (see FASTS' WWW address above and in Electronic News), and members are encouraged to browse through it.

The position of funding for science has not become any clearer over the last month. Minister McGauran seems confident that he can stave off most of the threatened cuts. This does not sit very happily with announced cuts of 24 per cent to the Department of Industry, Science and Tourism.

I am meeting him next week, and will take the opportunity to raise some of the more persistent rumours of funding cuts with him. These relate to the universities, to CSIRO, to the 150% tax deduction for industry R&D, and to the flow-on effect to CRCs of cuts to associated research organisations.

They also relate to the position of Chief

Scientist. Will there be a full-time position with adequate support? When will an appointment be made.

Despite the Minister's confidence - and his assurances (see item 4) - the alarming rumours persist.

1. Launch of new Policy

The revised FASTS' Policy Document was launched in the Main Committee Room at Parliament House on June 18, and a copy formally presented to the Minister Peter McGauran.

It is a significant revision of the original policy, with new sections reflecting input from Member Societies, Board discussions, and from changing circumstances. Several of the new ideas were picked up in media coverage of the launch.

The launch was attended by about 60 people, including representatives of Member Societies, senior figures in science policy and administration from universities, CSIRO and bureaucracy, and the media.

Copies have been posted to all Member Societies, to relevant Ministers and their Opposition equivalents, to the members of Parliamentary Committee for S&T, and Heads of relevant Government Departments

2. New office

FASTS has moved to a new office in the Academy of Science dome. It is sited close to Parliament House, major Commonwealth Departments, the ANU and CSIRO headquarters, and to the Academy.

Physical address: Becker House, Gordon St, Canberra City (the Academy dome)
Postal Address: PO Box 218, DEAKIN WEST ACT 2600 (unchanged)
Phone: (06) 257 2891
Fax: (06) 257 2897
Email: fasts@anu.edu.au (unchanged)

3. November Council

The FASTS Council meeting on November 21 will be held in the Jaeger Room in the Academy dome building. All Member Societies are entitled to send representatives, and I hope you will take this opportunity to inspect our new premises as well as be involved in FASTS policy.

4. Letter from Minister

Minister McGauran has written to FASTS to inform me that he is preparing a proposal to Government to implement coalition policy on Chief Scientist and ASTEC; that preparations for next meeting of PMSEC have commenced, and he is writing to the PM about membership of PMSEC, "including the membership of your Federation."

5. EPAC submission

The FASTS' submission to the Economic Planning and Advisory Commission will be circulated by EPAC to all relevant Departments plus Treasury and Finance. It covers five topics:

a. career paths for younger scientists
b. measures to rectify looming shortage of maths and science teachers
c. proposal to fund a calendar of scientific events
d. an approach to tackle the chemical deficit issue
e. a new way of funding industrial R&D

The full submission is up on the FASTS' website (see address above and in Electronic News below).

6. Accounts mailed

Accounts have now been mailed to all FASTS Corporate, Associate and Observer Members, to cover subscriptions to FASTS for 1996-97.

7. Joint statement on Higher Education

FASTS was one of 7 signatories to a joint statement on the threatened cuts in university funding. This was prepared by the Higher Education Alliance (including the AV-CC and the National Tertiary Education Union), and sent to the Prime Minister and all MPs.

8. Democrat spokesperson for S&T

From July 1, Senator **Natasha Stott-Despoya** will take over this role from **Robert Bell**.

9. Media

FASTS is gaining increasing coverage in the media, either as the main point of a story or mentioned in reference to general funding or policy issues. *The Age* June 11 p5 "Top science job may be downgraded". *The Australian* June 15-16 p47 "Budget cut brain drain pure sci-fi: McGauran" *The Courier-Mail* May 28 "University staff, students plan 24 hour strike". *Campus Review* end May p1 "Time running out for VCs". *The Australian* June 19 p 38 "Science on the cheap could cost us". *The Age* June 19 p 6 "Scientists seek competition in tax breaks for research". *Canberra Times* June 19

p4 "Maths lacking: report". *Nature* vol 381 June 6 p456, "Cuts strike at Australian Universities". *New Scientist* 22 June p49, on launch of new policy document. *Canberra Times* Sunday June 30 "Sums done, maths doesn't add up" (editorial).

Joe BAKER
President
FASTS

ELECTRONIC NEWS

DELTA Home Page
In the last issue of *Myrmecia* the home page of DELTA given was about to be changed. The new home page for DELTA is:
http://www/keil.ukans.edu/delta/

The Tree of Life is a source of information for lay people and high school students on a whole range of biological organisms.

The address for the site is:
http://phylogeny.arizona.edu/tree/phylogeny.html

CERIT, University of NSW
http://www.unsw.edu.au/clients/unisearch/cerit/index.htm

FASTS
http://bimbo.pharmacol.su.oz.au/fasts/fastshome.html

COMING EVENTS

ANIC TRAINING COURSES

The Australian National Insect Collection, CSIRO Division of Entomology will be conducting the following training courses during 1996 and 1997.

ANIC Technical Training Course
9-13 September 1996

For technicians involved in the collection, preservation and curation of entomological specimens for research purposes. Course Fee: $500

Thrips Identification Course
21-25 April 1997

A five-day course on the biology and identification of thrips will primarily familiarise participants with basic methods of collecting, slide preparation and identification. The course will also provide an introduction to thrips biology, trapping for pest management and DNA techniques for studying variation within and between species. Course Fee: $1,000

Whiteflies Identification Course
3-6 December 1996

An identification course on whiteflies (HEM: Aleyrodidae) and their natural enemies. The course will be conducted by experts from the ANIC and CABI's International Institute of Entomology (IIE). The course will cover basic biology and identification of whiteflies with particular emphasis on pest species and the Australian fauna. Course Fee: $1,000

Biology and Identification of Collembola (Springtails)
3-6 FEBRUARY 1997

A four day course on the identification of Collembola (springtails). Participants will be instructed in the morphology and most important characters for identification of the Australian fauna and provided with an illustrated key to the genera. The course will also provide an introduction to the biology of Collembola and there will be an opportunity to work on participants' own material if wished. Course fee: $500

All these courses will be held at the Division of Entomology in Canberra. Course fees do not include food and accommodation. Reasonably priced accommodation can be arranged at the participant's request.

Information from: Graham Crompton,
ANIC Collection Manager
CSIRO Division of Entomology
GPO Box 1700
CANBERRA ACT 2601, Australia
Internet: grahamc@ento.csiro.au
Fax: (06) 246 4264

The 7th Arbovirus Research in Australia Symposium/ 2nd Mosquito Control Association of Australia Conference.

Ocean Blue Resort, Surfers Paradise, Gold Coast, Australia, 25 - 29 November 1996.

Details: *Myrmecia* **32**(2): 29

For further information and registration forms contact the Convenor:

Brian Kay,
Queensland Institute of Medical Research,
PO Royal Brisbane Hospital, QLD. 4029.
Phone: 07- 3362 0350
Fax: 07- 3362 0106
E-mail: lyndam@qimr.edu.au

Centre for Biodiversity & Bioresources

Centre for Biodiversity and Bioresources
A Commonwealth Key Centre
of Teaching and Research
ADVANCED PROGRAM IN
BIODIVERSITY ASSESSMENT
Introductory Workshop: Recent developments in Biodiversity Assessment
Macquarie University
22-22 November 1996

Details: *Myrmecia* **32**(2): 28

Registration and Further Information

Robyn Delves
Centre for Biodiversity and Bioresources
School of Biological Sciences
Macquarie University,
Sydney NSW 2109
Ph: (02) 850 8153
Fax: (02) 850 9237
Email: abeattie@rna.bio.mq.edu.au

Orthopterists' Society
International Conference
Cairns
26-30 October 1997

The International Conference of the Orthopterists' Society will be held in Cairns, Queensland, Australia from 26-30 October 1997. Symposia will be held on a number of topics including Conservation and Biodiversity, Bio-control of Orthoptera, Orthopteran Biochemistry and Molecular Endocrinology and others.

Informative brochure from **Dr. D.C.F. Rentz,**
CSIRO Division of Entomology,
GPO Box 1700,
Canberra, ACT, 2601,
Australia,
Email: daver@ento.csiro.au.

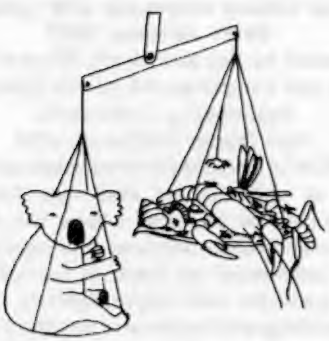
ELEVENTH AUSTRALIAN
WEEDS CONFERENCE
MELBOURNE UNIVERSITY
30th Sept - 3rd Oct. 1996

Details: *Myrmecia* **31**(4): 39

Organised by the Weed Science Society of Victoria.

Further information:
Chris Knight
Promotions Officer
Australian Weeds Conference
PO Box 987
FRANKSTON VIC 3199
Phone: 03 96192603
Fax: 03 96191756

THE OTHER 99%



The Conservation and Biodiversity of Invertebrates
Australian Museum, Sydney
9-12 December 1997

The third meeting on the Conservation and Biodiversity of Invertebrates will be held in Sydney, 9-12 December 1997. The objective of this meeting will be to demonstrate the importance of invertebrates in biodiversity research and in nature conservation. Probable symposia topics: Assessing the other 99%; Describing the other 99%; Invertebrate Conservation through Legislation and Policy; The Invertebrate Agenda

There will also be contributed paper sessions, posters and a workshop, on 12 December, on "Use of invertebrate data in national and state biodiversity strategies".

Organising Committee:
Gerry Cassis - 02 9320 6346
Pat Hutchings - 02 9320 6243
Richard Major - 02 9320 6183
Winston Ponder - 02 9320 6120

Mailing address and further details:
Australian Museum
Invertebrate Biodiversity Conference
6 College St
Sydney NSW 2000
Fax: 02 9320 6050
Email: invert@amsg.Austmus.oz.au

9TH INTERNATIONAL AUCHENORRHYNCHA CONGRESS
Sydney, Australia
17-21 February 1997

The Second Circular and Registration Form for this conference is now available. Copies can be obtained from:

Australian Convention and Travel Services
GPO Box 2200
Canberra ACT 2601
Australia
Ph: (61-6)(06) 257 3299
Fax: (61-6)(06) 257 3256

Further information:
Dr M.J. Fletcher
NSW Agriculture
PMB 10
RYDALMERE NSW 2116
email: fletchm@agric.nsw.gov.au

THE COMMERCIALISATION OF TRANSGENIC CROPS
Risk, Benefit and Trade Considerations
WORKSHOP
Canberra, Australia
11-12 March 1997

The Cooperative Research Centre for Plant Science and the Bureau of Resource Sciences.

The commercial use of transgenic crops has begun in several countries. Transgenic crops developed in Australia are being field tested and hold great promise for the Australian agricultural economy. However, Australian companies, scientists and regulatory authorities have to deal with several complex issues in considering commercial use. Scientific and public concerns may influence the cultivation of these crops and the introduction of products to the market. Recognising the need for a balanced forum, the CRC for Plant Science and the Bureau of

Resource Sciences are developing a program for a workshop. The aim of this workshop is to encourage Australian scientists, agriculturalists and regulatory authorities to assess the issues that are now perceived to be critical to the progress of Australian projects. People with an interest in participating in the workshop are invited to contact **Mark Gibbs** or **George McLean**:

Mark Gibbs: Fax: 06 2465000
Phone: 06 2465455
Email: mgibbs@pi.csiro.au
George McLean: Fax: 06 2724896
Phone: 06 2724752
Email: GDM@mailpc.brs.gov.au

Workshop Secretary:
Ms Tanya Joce
RSBS, ANU
GPO Box 475
Canberra ACT 2601
Fax: 06 2494437
Email: joce@rsbs-central.anu.edu.au

FIRST NOTICE
3rd Brisbane Workshop
on Soil Invertebrates
Brisbane
15-17 July 1997

Following successful workshops held in 1983 and 1989, the Bureau of Sugar Experiment Stations and the CRC for Tropical Pest Management are hosting a third workshop to be held in July 1997. Papers on all areas of the biology, ecology and management of soil invertebrates are welcomed.

For further information and registration notice

Contact: Peter Allsopp
BSES, Bundaberg
Phone: 071 593228
Fax: 071 593383

or Les Robertson
BSES, Tully
Phone: 070 681488
Fax: 070 681907

or John Rogers
CTPM, University of Queensland
Phone: 07 33651861
Fax: 07 33651855
Email: J.Rogers@ctpm.uq.edu.au

FEDERAL AND INTERNATIONAL
SCIENTIFIC PERMITS:
a workshop for
natural history museums and collectors
29-31 January 1997

Sponsored by the San Diego Natural History Museum and co-sponsored by the Association of Systematics Collections.

San Diego, California, USA

Confusion and controversy often surround the process of applying for and maintaining valid collecting permits. In many cases, the process is not well understood, new laws and regulations are not well publicised, or there is confusion about different agencies and responsibilities.

This bilingual (English and Spanish) workshop will address these problems by bringing together scientists, agency representatives and collectors from several countries to examine the problems and provide clarification. Permit agency representatives will be available at a "permits bazaar" to answer individual questions and to facilitate on-site permit applications.

Topics to be addressed include:

*The roles, responsibilities and requirements of permitting agencies: Canada, the U.S.A., Mexico, Central and South America
*International regulations and treaties affecting global scientific collecting
*Issues related to the Biodiversity Convention, collecting, and national sovereignty laws
*Issues specific to vertebrate, invertebrate, botanical, microbiological and paleobiological collecting
*The roles of scientific and avocational collectors

The official languages of the workshop will be English and Spanish. Simultaneous translation facilities will be provided for speakers of these languages. Participants with other translation needs should contact the workshop coordinator. All proceedings will be printed in the language in which they are submitted, with abstracts in the other language. Individual translators will be available as needed.

Wednesday will feature presentations by a variety of speakers, representing the issues confronting governmental agencies, universities, museums, and private or avocational collectors. An icebreaker reception at the San Diego Natural History Museum will be held Wednesday evening. Thursday morning will conclude the formal presentations. Representatives of permitting

agencies will be available all afternoon on Thursday to answer questions and to facilitate applications for permits. A reception and keynote address will be held Thursday night. On Friday morning, a moderated plenary session will allow questions to be discussed by all parties. Proceedings of the workshop will be mailed three to six months after the workshop.

The registration fee of $250 US includes the cost of the translation facility, receptions, coffee breaks, and all handouts and proceedings.

The costs of other meals, transportation, lodging and on-site permit applications are not covered in the fee. A list of hotels and motels in the area will be sent to registrants.

An all-day whale watching tour for a limited number of workshop participants has been scheduled for Saturday, February 1. Registration for this trip is separate from the conference registration.

For further information and registration forms, please contact:

Sally Shelton
Director, Collections Care and Conservation
San Diego Natural History Museum
P. O. Box 1390
San Diego, California 92112
USA
Phone: 0011 1 619 232-3821
Fax: 0011 1 619 232-0248
Email: LIBSDNHM@CLASS.ORG

Details of Permit requirements and contact organisations for Australia are available at: http://155.187.10.12/anbg/collecting.html

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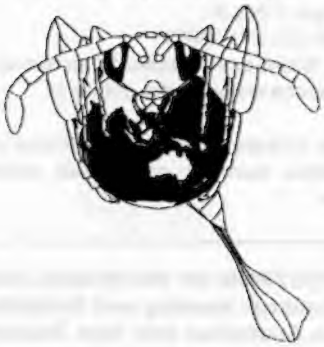
Xth INTERNATIONAL CONGRESS OF ACAROLOGY
6-10 July 1998
Canberra, Australia

Further Information:

Dr Bruce Halliday
Principal Research Scientist (Acarology)
CSIRO Division of Entomology
GPO Box 1700
CANBERRA ACT 2601
AUSTRALIA
Phone: (06) 246 4911
Fax: (06) 246 4000
Email: bruceh@ento.csiro.au

ADVANCE NOTICE



Fourth Conference of the International Society of Hymenopterists.
Canberra, AUSTRALIA
6-11 January 1999

Details: *Myrmecia* **32**(1): 28

The Conference address and contact is:

4th Conference of the International Society of Hymenopterists,
c/o CSIRO, Division of Entomology,
P.O. Box 1700
Canberra, ACT 2601
AUSTRALIA
fax: 61-6-246.4264
email: iann@ento.csiro.au.

SOUTHERN CONNECTION

II CONGRESS
"Southern Temperate Biota and Ecosystems: Past, Present and Future."
6-11 January 1997
Chile, South America

Details: *Myrmecia* **31**(4): 40

Further details:

Ignacio Fuenzalida
Local Organiser
II Southern Connection Congress

Depto. de Biologia - Facultad de Ciencias
Universidad de Chile, Casilla 653
Santiago, CHILE
Fax: 65 (2) 271 2983
Email: Southern@abello.dic.uchile.cl
or Botanica@abello.dic.uchile.cl

Please include your name, postal address, fax, telephone number and email address as appropriate.

A SPECTRUM OF MICROBIOLOGY
International Meeting and Exhibition
of the Australian and New Zealand
Societies for Microbiology
CHRISTCHURCH, NEW ZEALAND
29 September - 4 October 1996

Details:
Tour Hosts Pty Ltd
Phone: (61-2) (02) 262 2277
Fax: (61-2) (02) 262 3135 or 262 2323
Email: TourHosts@tourhosts.com.au

NEW PUBLICATIONS

Insect Pests of Eucalypts
on Farmland and in Plantations in
Southeastern Australia

The advertising brochures included as an insert in the last issue of *Myrmecia* concerning this CSIRO Identification Leaflet failed to note that its author is **Roger Farrow** whose extensive experience in eucalypt entomology and comprehensive photographic collection has made this delightful publication so valuable.

Australian Society for Limnology, Special Publication No 11:

Catalogue of the Australian Mayflies, Recent and Fossil (Insecta: Ephemeroptera) by Michael D.Hubbard, Florida A&M University, and Ian C.Campbell, Monash University; pp43.

This catalogue has just been published (July 1996) and is available for $20 a copy from:
Dr R.Marchant
ASL Secretary
71 Victoria Crescent
Abbotsford VIC 3067
Please make cheques or money orders payable to the **Australian Society for Limnology**.

The Parasitic Hymenoptera -
Subfamilies Eurytominae
and Eudecatominae (Chalcidoidea,
Eurytomidae) of the Palaearctic
by **Zerova M.D.**,

Kiev, Naukova Dumka Publishers, 1995, 457pp. (In Russian). 368 literature references, 125 tables with white & black pictures. Hardcover. Price $US25.00 (including packing & shipping).

This book represents a new taxonomic study of a large group of phytophagous and entomophagous chalcidoid wasps of the subfamilies Eurytominae and Eudecatominae which are associated with many plant and insect species in the Palaearctic region.

The first chapter contains a review of the morphology of adults and preimaginal stages of Eurytominae and Eudecatominae. A table of trophical connections is given. Most species of Eurytominae and Eudecatominae are entomophagous (151 species among 261 with known hosts). The entomophagous species are associated with 6 Orders of insects: Blattodea, Orthoptera, Hymenoptera (74 species of eurytomids), Diptera (43 species), Coleoptera (25 species) and Lepidoptera. Phytophagous Eurytominae are associated with 139 species of 13 families of plants. Most of phytophagous species are seed-feeders and only 2 species of Eurytominae are gall-formers. Four genera of Eurytominae (*Bruchophagus*, *Systole*, *Pseudosystole*, *Exeurytoma*) are exclusively seed-feeders. The largest phytophagous group includes 35 species developing on plants of the family Fabaceae.

The economic importance of parasitic and phytophagous species is discussed. 40 species of Eurytominae develop on plants of economic importance belonging to 7 families (Rosaceae, Fabaceae, Apiaceae, Lamiaceae, Anacardiaceae, Brassicaceae, Pinaceae). 20 species of Eurytominae may be identified as serious pests.

Most of them are seed-feeders and 5 important *Eurytoma* species develop inside plant stems. Parasitic species of Eurytominae are included in entomophagous complexes of many economically important insect groups:

Coleoptera (Bruchidae, Buprestidae, Curculionidae and others), Diptera (Cecidomyiidae, Tephritidae) and Hymenoptera (Cynipidae).

The peculiarities of geographical distribution and the evolutionary trends of development of trophical connections are discussed.

The taxonomic system of the Eurytomidae and phylogenetic relations of subfamilies are discussed in a separate chapter.

The systematic chapter of the book contains revisions of 6 genera of Eurytominae: *Eurytoma, Bruchophagus, Systole, Pseudosystole, Exeurytoma, Nikanoria*) and the genus *Eudecatoma* (Eudecatominae).

Original identification keys and complete descriptions with details of biology, type locality and distribution are given for 265 Palaearctic species of Eurytominae and 9 Palaearctic species of Eudecatominae. Original black and white drawings of the adults and preimaginal stages of chalcidoid wasps are represented in 125 tables.

The book gives unique information about chalcidoid wasps of the subfamilies Eurytorninae and Eudecatominae that is aimed at a wide audience of entomologists/taxonomists, advanced students, research workers and advisers in biological control, applied entomology, crop protection and plant quarantine.

The book may be ordered from the author at the address:

Dr Marina D. ZEROVA
Vladimirskaya Street,
DOM-51/53, KB-73, Kiev,
252034, UKRAINE.
Fax: 0015-7-44-224-1569
Email: alex@cenos.freenet.kiev.ua
(With subject line: "For Dr Zerova")

The payment should be by bank cheque or International money order for the amount of $US25.00 (including shipping).

NOTICES

Macquarie University
School of Biological Sciences
PhD Scholarship

Applicants are sought for a PhD scholarship commencing in 1997, to work on the impact of psyllids on eucalypt foliage. The stipend will be $19000 tax free. Applications close on 4 October 1996. A background in plant physiology/ biochemistry is desirable. The project will be jointly supervised by Dr **Christine Stone** (State Forests NSW Research Division, phone (02) 9872 0111) and Associate Professor **D.F. Hales** (School of Biological Sciences, Macquarie University, NSW 2109, phone (02) 9850 8181, email dhales@rna.bio.mq.edu.au). Please contact either of these people urgently for further information if interested in this exciting prospect.

INSECT RESISTANCE STRATEGIES
AIRAC

AIRAC (AVCARE Insect Resistance Action Committee) is a voluntary technical group of agricultural chemical company representatives. The charter is to develop and communicate effective insect resistance strategies in key cropping segments in consultation with researchers and interested individuals.

AIRAC has undertaken to develop a voluntary register of such researchers, individuals and their areas of interest and expertise regarding insect resistance management/research for industry circulation. Communication between interested groups and individuals will enhance the relevance, effectiveness and compliance with effective strategies.

If you are interested in having your name on this register please send details of your Name, Title, Institution/Company, Postal Address, Internet Address, Phone, Fax, Summary of project expertise or effort, Key insect(s), Key crop(s) and Key chemical resistant group(s) to:

Mr Steven Jones
Deputy Chairman
AIRAC
PO Box 9
Baulkham Hills NSW 2153
Fax: 02 9838 8379
Email: smjones@ozemail.com.au

Letter to the Editor

The following letter has been received by the Society. Any member who wishes to respond may do so directly rather than through the Society.

M. X. Radenne
78, Avenue de Dunkerque
59153 GRAND-FORT-PHILLIPE
FRANCE
TEL/FAX: 28 23 17 04

Australian Entomological Society

Dear Sir,

I have obtained your address from the Australian Embassy. I am a collector of scorpions and pseudoscorpions.

My object is to enlarge my collection of specimens, but I do not have any contacts in Australia and it is often difficult to obtain information from a foreign country.

I am looking for addresses of people, shops or establishments which sell insects in your country. I also wish to know more about your Society.

Yours sincerely
M. X Radenne

1996 Listing of Postgraduate Projects in Entomology AN AUSTRALIAN SURVEY

Introduction

This is a list of 1996 Postgraduate projects in Australian Entomology. The last survey of this kind, coordinated by **Jenny Anderson**, was published in two parts in the May and August 1994 issues of *Myrmecia*. The current list comprises 208 projects in entomology. Special thanks are due to those Regional Councillors who coordinated the collection of material and to everyone else who contributed (their names appear in brackets before the entries). As collator of the list, it was particularly convenient to receive entries by email so that retyping was kept to a minimum. I apologise in advance for any discrepancies or omissions that may have occurred. Further to this, there were some regions/institutions not represented. To take advantage of a final opportunity, please send details for the next issue well before the deadline of Friday 25th October (to address inside front cover). It is hoped that the publication of this list provides valuable information on postgraduate research in Australian entomology and, just as importantly, facilitates communication between researchers working in related fields.

Gary TAYLOR
AES Honorary Secretary

AUSTRALIAN CAPITAL TERRITORY
(Dr Glynn Maynard, Regional Councillor, ACT)

Australian National University
(Dr Penny Gullan)

Division of Botany & Zoology, Faculty of Science
(*co-supervision in CSIRO Division of Entomology (see also Natural Resources & Biodiversity Program, CSIRO Division of Entomology)

COOK, L.G. (PhD) Karyology and evolution of the gall-forming genus *Apiomorpha* (Hemiptera: Coccoidea: Eriococcidae).

DAVIES, K.F. (PhD) Which traits make species extinction-prone in forest fragments?

*GUNN, B.M. (Hons) The development of the aquatic fauna of the Magela floodplain during early wet season inundation.

LIT, I.L. (PhD) Systematics of Australasian and South East Asian lac insects (Hemiptera: Coccoidea: Kerriidae).

MELBOURNE, B.A. (PhD) The spatial dynamics of the epilithon-grazer system: Scale, pattern and process.

SPESSA, A.C. (PhD) Behavioural and population ecology of an Australian colletid bee, *Amphylaeus morosus*.

*SU, Y.-N. (Grad.Dip.Sci) The biology and taxonomy of three species of dwarf crickets (Orthoptera: Gryllidae: *Bobilla*).

*WRIGHT, I.A. (PhD) Towards a classification of eastern Australian freshwater lakes.

Division of Entomology, CSIRO
(Dr Penny Gullan)

Natural Resources & Biodiversity Program
(*with co-supervision in Botany & Zoology, ANU)

*BALDERSON, J.A. (PhD) A systematic revision of the subfamily Paraoxypilinae (Insecta: Mantodea) of Australia, with particular

reference to the genus *Gyromantis*.

*HOARE, R.J.B. (PhD) Systematics of Australian Nepticulidae (Lepidoptera).

*MILLER, L.R. (PhD) Systematics of Nasutitermitinae (Isoptera).

OTTO, J. (PhD through Bremen Uni., Germany) Systematics and biology of Australian Erythracarinae (Acari: Prostigmata: Anystidae).

*REICHEL, H.L.M. (PhD) Systematics and biogeography of *Rhytidoponera* (Hymenoptera: Formicidae).

*SCHUMACHER, R. (Grad.Dip.Sci) A study of the parasitoids of larvae and eggs of the autumn gum moth, *Mnesampela privata* Guen. (Lepidoptera: Geometridae) on *Eucalyptus globulus* in Canberra.

Biotechnology Program

(*with co-supervision in Botany & Zoology, ANU)

*BROWNLIE, J. (Hons) Linkage disequilibrium among genes of the alpha-esterase cluster in the house fly, *Musca domestica*.

*CAMPBELL, B. (PhD) Genetics of esterase resistance: The consequences for resistance management of pyrethroids.

*COLEBATCH, G. (PhD) Mirid physiology and susceptibility to proteinaceous toxins.

*CLAUDIANOS, C. (PhD) Molecular analysis of an alpha-esterase gene cluster in *Musca domestica*.

*DENT, S. (MSc) Juvenile hormone esterase in *Drosophila*.

*JOHNSON, K. (PhD) Virus resistance mechanisms in *Drosophila melanogaster*.

*GIBSON, N. (Grad.Dip.Sci) Molecular taxonomy of honey bee mites.

*RICE, R. (PhD) Molecular taxonomy of the bacterium, *Nosema apis*.

*ROBIN, G.C. (PhD) Molecular analysis of an alpha-esterase gene cluster on chromosome 3R of *Drosophila melanogaster*.

NEW SOUTH WALES
(Mr Stephen Doggett, Regional Councillor NSW)

University of New South Wales

School Of Biological Science
(Julie-ann Short (CERIT))

GOLETSOS, Con (PhD) Biology and bionomics of some Australian Coccinellidae (Coleoptera).

McLEOD, Lynette (Masters) Overwintering strategies and emergence patterns of *Lucilia cuprina* and *Chrysomya rufifacies* in the arid zone of NSW.

University of Sydney

DOGGETT, Stephen (PhD) Vector competence of mosquitoes with Barmah Forest virus.

MOULDS, Max (PhD) A review of the systematics and phylogeny of the genera of Australian cicadas (Hemiptera: Auchenorrhyncha).

Orange Agricultural College
(Dr Geoff Gurr)

BAGGEN, Lindsay (PhD) Influence of flowering plants on biological control of potato moth by exotic parasitoids.

HOSSAIN, Zamir (Master of Rural Management) Investigation of a novel lucerne pest management technique - use of *Phacelia tanacetifolia* Bentham (Hydrophyllaceae) border plantings to enhance biological control.

VALENTINE, Bruce (Master of Rural Management) The role of insect growth regulators fenoxycarb and tebufenozide in improving the sustainability of apple pest management.

Department Of Medical Entomology
Westmead Hospital

(*enrolled in the Department of Medicine at Sydney University)

WEBB, Cameron (PhD) The biology and ecology of saltwater mosquitoes at Homebush Bay.

WILLEMS, Karen (MSc) The biology and ecology of freshwater mosquitoes at Homebush Bay.

Army Malaria Research Unit, Ingleburn

(*enrolled in the Faculty of Medicine at Sydney University)

COOPER, Robert (PhD) Identification and distribution of the Anopheline mosquitoes in Papua and New Guinea and northern Australia.

FRANCES, Stephen (PhD) Transmission of *Rickettsia tsutsumagushi* by chigger vectors in the field and laboratory in Thailand.

QUEENSLAND
(Dr Tim Heard,
Regional Councillor, Queensland)

University Of Queensland

Gatton College
(Dr Errol Hassan)

BRACEY, Edward (Postgrad Dip) The use of neem extract to manage sucking insects in cucurbits.

GRUNDY, Paul (BApplSci (Hort Tech)) The development of a mass rearing technique for reduviid species for utilisation as a biological control agent in the horticultural industry.

MASASSO, Peter (BApplSci (Hort Tech)) Wheel traffic effects on soil fauna.

MCKENNA, Dale (BApplSci (Rural Tech)) Observation of the establishment of *Coccus viridis* (Green), a green coffee scale and their control using insecticides in plantation coffee in the Western Highlands of Papua New Guinea.

MORRIS, Karl (BApplSci (Hort Tech)) Ecology and behaviour of Australian native honey bees, *Trigona* spp.

RAZZAQUE, Qazi (PhD) Research on biology and ecology of the duboisia leaf beetle, *Psylliodes parilis* Weise.

SCHLACK, Simone (MAgrSc) Quarantine status of the fruit fly, *Atherigona orientalis* (Schimer) in export cucurbits.

SMITH, Nathanael (BApplSci (Nat Systems & Wildlife Management)) Study on a flatid, *Jamella australiae* Kirkaldy infestation causing dieback in *Pandanus tectorius* var. *pedunculatus* and its biological control using two species of egg parasitoid.

Department Of Entomology
(Dr Tim Heard)

ACDA, Miriam (MSc) Phosphine resistance in strains of *Rhyzopertha dominica* (Fabricius) (Coleoptera: Bostrichidae) from the Philippines.

ALUGADDA, Swarnalatha (MSc) Courtship and mating behaviour of *Trichogramma australicum* Girault (Hymenoptera: Trichogrammatidae): Progeny sex ratio and modalities of male-female attraction.

AMORNSAK, Weerawan (PhD) Host discrimination and superparasitism behaviours by the lepidopteran egg parasitoid, *Trichogramma australicum* Girault (Hymenoptera: Trichogrammatidae) on the cotton bollworm, *Heliothis armigera* Hübner (Lepidoptera: Noctuidae).

AZAM, Golam (PhD) Invasion and colonisation of native habitats by exotic mites.

BEARD, Jennifer (PhD) Systematic and ecological studies on some Australian predatory mites (Acari: Phytoseiidae), with reference to the use of native species of *Neoseiulus* Hughes as biological control agents of thrips.

BRIER, Hugh (MAgrSc) Soybean tolerance to bug attack.

BROUGHTON, Sonya (PhD) The effect of leaf insects on *Lantana*.

CEBALLO, Flor (PhD) Why does *Coccidoxenoides peregrinus* (Timberlake) need augmentative release to be effective in biological control in Queensland citrus?

COOK, Jason (PhD) The spatial and temporal dynamics of interactions between the citrus leafminer (*Phyllocnistis citrella* Stainton) and citrus.

CORCORAN, Robert (PhD) Physiological and behavioural effects of heat in fruit flies of the family Tephritidae.

DAHLAN, Ahmad (PhD) Larval anatomy, development and the determination of nutritional requirement of *Trichogramma* spp. in vitro.

DILLON, Martin (MSc) Generic algorithms for modelling insect population movement.

EVANS, Susan (BScHons) The biology and systematics of Australian hoverflies (Diptera: Syrphidae)

FLOATER, Graham (PhD) The spatial dynamics of a subtropical herbivore.

GIBB, Dallas (MAgrSc) Monitoring plant responses to early insect damage and its effect on cotton production.

GOODWIN, Bronwyn (BScHons) Physiology of honey bee resistance/susceptibility to American foulbrood.

GREEN, Jan (PhD) The ecological role of spiders in a citrus agro-ecosystem.

GRIFFITHS, Manon (PhD) Aspects of the life history and biology of the red cedar tip moth (*Hypsipyla robusta*).

GROSTAL, Paul (PhD) The relationship between

golden orb-weaving spiders, (*Nephila plumipes*) and kleptoparasitic spiders, *Argyrodes antipodianus* (Theridiidae).

HETERICK, Brian (PhD) A revision of the Australian fauna of the myrmicine genus *Monomorium* (Hymenoptera: Formicidae).

HOOD, Shaun (PhD) Integrated pest management in cashews.

HUANG, Kui (MAgrSc) Studies on egg-recognition kairomones for *Trichogramma australicum* Girault (Hymenoptera: Trichogrammatidae), an egg-parasitoid of *Helicoverpa armigera*.

HULL, Craig (PhD) The orientation of the Queensland fruit fly, *Bactrocera tryoni* (Froggatt) (Diptera: Tephritidae) to kairomonal fruit volatiles.

JALLOW, Mustapha (PhD) Host selection and survival of early instars of *Helicoverpa armigera*.

JARJEES, Ekhlass A. (DipSc) A chemically defined synthetic diet for *Trichogramma australicum* Girault.

KHAN, Seemi (MSc) An evaluation of the host specificity of *Epiblema strenuana*, an introduced biological control agent of the weed, *Parthenium hysterophorous*.

KHUMLEKHASING, Manthana (PhD) Species status, host-plant relationships and predatory behaviour of *Frankliniella schultzei*.

KUNIATA, Lastus (PhD) The management of *Sesamia grisescens* Walker (Lepidoptera: Noctuidae), a sugarcane stem borer in Papua New Guinea.

LaBRIE, Philip (MScQ) The development of an artificial diet for Australian native butterflies.

LAMBKIN, Christine (BScHons) Congruent character systems: A basis for subgeneric groupings in the Australian *Anthrax* (Diptera: Bombyliidae).

LOCH, Andrew (PhD) Importance of alternative hosts in the ecology of *Trissolcus basalis* (Wollaston) (Hymenoptera: Scelionidae): Implications for biological control of green vegetable bug in south-east Queensland.

LOGAN, David (PhD) Studies on the biology of negatoria and Childers canegrubs as a basis for development of improved controls.

McGRATH, Susan (BScHons) The role of insects in a pilot waste-management program.

MAROHASY, Jennifer (PhD) The host plant relationships of *Phenacoccus parvus* Morrison with particular reference to host specificity testing for weed biocontrol.

MILLER, Liza (MSc) Methods for accurate identification of canegrubs.

MILSTEIN, Tal (PhD) Population dynamics of the root-knot nematode (*Meloidogyne* sp.): Early establishment of plant infestation.

MONSOUR, Chris (PhD) Optimisation of *Bacillus thuringiensis* (Bt) usage in the IPM of heliothis.

MUDA, Rahim (PhD) An investigation into the biological activity of azadirachtin against *Rhizopertha dominica* F. (Coleoptera: Bostrichidae) in grain storage.

NGERNSIRI, Lertluk (PhD) Artificial production of a thelytokous line of *Trichogramma australicum* (Hymenoptera: Trichogrammatidae).

NURINDAH (MSc) Oviposition behaviour of *Trichogramma australicum* Girault (Hymenoptera: Trichogrammatidae on *Helicoverpa armigera* (Lepidoptera: Noctuidae) eggs: A study for in vitro culture.

OSMAN, Mohd Shamsudin (PhD) Physiological and biochemical changes in fruit flies subjected to thermal stress.

PETERS, Brenton (MAgrSc) Aspects of management of subterranean termites in Queensland.

QUIMIO, Gorgonio (PhD) Mating behaviour and host relationships of Australian populations of the fruit fly parasitoid, *Fopius arisanus* (Sonan) (Hymenoptera: Braconidae).

ROCHESTER, Wayne (PhD) Forecasting spring migrations of *Helicoverpa punctigera* and *H. armigera* from inland Australia to summer cropping areas of eastern Australia.

ROSS, Michael (PhD) Mating behaviour and ecology of some opiine (Braconidae) parasitoids of fruit flies.

SCHNEIDER, Margaret (PhD) A systematic study of Australian Conopidae (Insecta: Diptera).

SCHOLZ, Bradley (PhD) Consumer choice by egg parasitoids: Odours and host location.

SEEMAN, Owen (PhD) The evolutionary relationships of trigynaspid mites associated with beetles inhabiting dead wood.

SEXTON, Stephen (MAgrSc) A theoretical and field study of codling moth control using a mating disruption system.

SIRIWARDANA, Khema (MAgrSc) An analysis of chemical communication as a means of understanding species status of green

vegetable bug populations, *Nezara viridula* (Hemiptera: Pentatomidae).

SPOLC, David (PhD) A virtual model of the growth habits of red cedar (*Toona australis*) and their modification by tip moth (*Hypsipyla robusta*) attack.

STANAWAY, Mark (PhD) Factors affecting the success of insect pest establishment.

WEISS, Brian (DipSc) Inka cells and ecdysis triggering hormone in *Helicoverpa*.

WINTERTON, Shaun (DipSc) Taxonomic studies in Therevidae.

Centre For Tropical Pest Management

AITKEN, Lynn (PhD) Technical and social interactions shaping the development and implementation of IPM.

BODNARUK, Kevin (MAgSc) Key factors influencing the acceptance and practice of IPM in three areas of the Australian pome fruit industry.

DREW, Henry (PhD) Criteria for assessing the effects of political and legal decision-making on adoption and effectiveness of IPM in tree crops.

FAUZI, Taufik (PhD) Ecology of parthenium rust.

HUBER, Patrick (PhD) Interactions of fruit-piercing moth and rainforest.

KRITICOS, D. (PhD) Use of process based model for woody weeds.

NAVIE, Sheldon (PhD) Biology of parthenium weed.

O'DONNELL, Chris (PhD) Predicting annual weed distributions in a changed climate.

WILSON, Peter (PhD) *Helicoverpa armigera* and anthracnose attacking stylos.

Department Of Biochemistry

MEADOWS, Bruce (BApplScHons) Brain adrenergic characterisation.

WHITEHALL, Vicki (BScHons) Octopamine receptor characterisation/genetic transformation of the honey bee.

Department Of Botany

HENNECKE, Berthold (MAgrSc) Ecology and spread of the pathogen *Phloeospora mimosaepigra*, a biological control agent for *Mimosa pigra*, the giant sensitive plant.

MARTIN, Heidi (BScHons) Fungi associated with *Cactoblastis*: the potential for integrated biocontrol of prickly pear.

Department Of Parasitology

CHIGAGURE, Noel (PhD) Application of microsatellite DNA in population genetics of cattle ticks.

CRAMPTON, Andrea (PhD) The genome of the cattle tick.

JONES, Shirley (PhD) Genetic basis fo resistance to synthetic pyrethroids in the cattle tick.

LAKE, Fiona (BScHons) Variation in the intron of the acetylcholinesterase in ticks.

LEE, E. (BScHons) Interspecific variation in the acetylcholinesterase gene in ticks.

MURRELL, Anna. (BScHons) Molecular phylogeny of rhipicephaline ticks.

SHAW, Matthew (BScHons) Molecular taxonomy of the paralysis tick, *Ixodes holocyclus*.

Tropical Health Program

BEEBE, Nigel (PhD) DNA probes for the *Anopheles punctulatus* complex.

JENNINGS, Craig (PhD) Intrinsic and extrinsic factors affecting competence of mosquitoes for Ross River virus.

PAGET, Sarah (PhD) Measurement of mutation frequencies and drug resistance in malaria.

PASAY, Cialo (PhD) A study in the genetic diversity of *Plasmodium* spp. in an area of the Philippines endemic for malaria.

PAYNTER, Stewart (MMedSc) Malaria growth rates in infected volunteers.

PRESCOTT, Nicole (PhD) Development of recombinant fusion proteins derived from merozoite surface antigens of *Plasmodium*.

RYAN, Peter (PhD) Ecology and control of arbovirus disease in South East Queensland.

STOWERS, Anthony (PhD) Structure and function and immunogenicity of *Plasmodium falciparum* antigen complex QF3.

WATSON, Tonya (PhD) Ecology and behaviour of *Aedes notoscriptus* in relation to Ross River virus in South-East Queensland.

WOLTER, Lindsay (PhD) Developing a rhesus genotyping method using PCA techniques.

Tropical Health Program And Entomology

FOLEY, Desmond (PhD) Investigations into the *Anopheles punctulatus* complex.

VICTORIA
(Ms Nancy Endersby,
Regional Councillor, Victoria)

La Trobe University

School of Zoology
(Ms June Cheah)

EDWARDS, M. (PhD) Control of insects in citrus and grapevines using entomophagous fungi and nematodes.
NEVILLE, P. (PhD) Fire ecology of ground-dwelling invertebrates.
MANSFIELD, C. (MSc) Host-finding by insect pests and beneficials.
SYMINGTON, C. (PhD) Lethal and sublethal effects of synthetic pesticides on parasitic Hymenoptera of *Phthorimaea operculella* (Zeller) (Lepidoptera: Gelechiidae) in integrated pest management systems for potatoes in Victoria, Australia.
TRAICEVSKI, V. (PhD) Nutritional ecology of the cowpea aphid.

Department of Genetics and Human Variation
(Dr Ary Hoffmann)

BJORKSTEN, T. (PhD) Experience effects in *Trichogramma* wasps.
GLENN, D. (PhD) Use of *Trichogramma* to control lightbrown apple moth.
JENKINS, N. (PhD) Using *Drosophila* to test evolutionary hypotheses about species borders.
KOVACS, I. (PhD) Genetic aspects of migration in *Helicoverpa*.
SGRO, C. (PhD) Genetics of life history variation in *Drosophila*.
THOMSON, L. (PhD) Factors determining the distribution of *Trichogramma carverae*.
WEEKS, A. (PhD) Biology and genetics of blue oat mites.
WOODS, R. (MSc) Genetics of asymmetry in *Drosophila* in the context of captive breeding.

University Of Melbourne
(Dr Jon Martin)

Genetics Department
CONLAN, L. (Hons) Molecular genetic studies of *Drosophila* glutamate decarboxylases.
DABORN, P. (MSc) Mechanisms of resistance to cyromazine.
FREEBAIRN, K. (MSc) Fitness and asymmetry modification of the diazinon resistance system.
HUMPHREY, S. (Hons) Linkage analysis of chromosome III of the Australian sheep blowfly, *Lucilia cuprina*.
McDONALD, R. (Hons) Molecular analysis of the dunce/stoned genetic interaction in *Drosophila*.

MONTGOMERY, J. (Hons) The genetic and molecular analysis of insecticide resistance genes on chromosome IV of the Australian sheep blowfly, *Lucilia cuprina*.
PRICE, G. (MSc) The biology of mixed lineage kinases.
PYKE, F. (PhD) The evolution of diazinon resistance in *Drosophila melanogaster*.
SMITH, M. (MSc) A study of the molecular mechanisms of endocytosis.
WARR, C. (PhD) The Trpl ion channel: Calmodulin-binding and expression pattern.

Zoology Department
ALLAN, R. (PhD) Exploitation of ant chemical communication systems by spiders.
RAMENAU, V. (PhD) Ecology and behaviour of riparian spiders.
ROGERS, L. (Hons) Chemical and mechanical mechanisms of plant growth suppression on the mounds of wood-eating termites, *Coptotermes lacteus*.
THOMAS. M. (Hons) Nest-mate recognition in *Iridomyrmex purpureus:* The near-neighbour effect.

Monash University

Department of Genetics and Developmental Biology
(A/Prof Stephen McKechnie)

KELLETT, M. (PhD) Role of the heat shock genes in determining stress resistance difference between two sibling *Drosophila* species, *D. serrata* and *D. birchii*.
McCOLL, G. (PhD) Role of the heat shock genes in stress resistance variation of *Drosophila melanogaster*.
SPACKMAN, M. (PhD) Mitochondrial DNA

variation in *Helicoverpa* species.

Department of Ecology and Evolutionary Biology
(Dr Paul Bailey)

CLISSOLD, Fiona (PhD) A grazing interaction: Mitchell grasslands and Australian plague locust.

DAY, Melinda (MSc) Relationships between woody debris dams, insects and organic matter processing in upland streams in SE Australia.

FERNADO, Chulani (MSc) Searching behaviour of *Copidosoma koehleri* (Hymenoptera: Encyrtidae).

HOSKING, Amanda (MSc) Ants, disturbance and forest regeneration.

LLOYD, Natalie (PhD) Spatial scale and autocorrelation in macroinvertebrate communities in streams.

MARSHALL, Nadine (MSc) Effect of increasing salinity on aquatic insects of lowland rivers.

NAIS, Deborah (PhD) Invertebrate food-web structure in ephemeral floodplain wetlands.

PARNRONG, Supatra (PhD) Production of *Austrophlebioides* (Leptophlebiidae: Ephemeroptera) in an upland stream.

TSYRLIN, Edwin (PhD) Taxonomy of *Riekoperla* and *Leptoperla*, two genera of gripoterygid stoneflies (Plecoptera) in southeastern Australia.

SOUTH AUSTRALIA
(Dr Bill Frost, Regional Councillor, South Australia)

The University of Adelaide

Department Of Crop Protection

AHMAD, Mahmood (PhD) Evolution of resistance to *Bacillus thuringiensis* in *Plutella xylostella* (Lepidoptera: Plutellidae).

ASGARI, Sassan (PhD) Aspects of the molecular basis of insect immunity.

BALL, Steven (PhD) The effect of habitat patch isolation on metapopulation dynamics: An empirical study using *Drosophila busckii*.

BECK, Markus (PhD) Molecular cloning and characterisation of genes coding for virus-like-particle proteins in *Venturia canescens*.

FIELD, Scott (PhD) Host selection behaviour, ovipositor morphology and host relationships in Scelionid egg parasitoids (Insecta: Hymenoptera).

HATAMI, Bijan (PhD) Biological control of diamondback moth *Plutella xylostella* (L.) using parasitoid wasp *Diadegma semiclausum* Hellen.

HILL, Catherine (PhD) The mode of action of *Bacillus thuringiensis* against the sheep louse, *Bovicola ovis*.

IQBAL, Muhammad (PhD) Systematics and biology of Baeini (Hymenoptera: Scelionidae).

JENNINGS, John (PhD) The systematics and biogeography of the Australian hyptiogastrine wasps (Hymenoptera: Gasteruptiidae).

GRBIN, Lynne (PhD) The influence of host factors on the efficiency of behaviour of the parasitic wasps *Apanteles ippeus* and *Cotesia plutellae*.

KENT, Jo (Hons) The taxonomy of the parasitoid complex associated with diamondback moth, and its application to biocontrol.

KINUTHIA, Wanja (PhD) Immune evasion of eggs and larvae in an insect endoparasitoid-host interaction.

MADDEN, Chris (PhD) The use of morphological deformities in chironomid larvae as an indicator of pesticide and heavy metal pollution in water catchment areas of South Australia.

PURVIS, Sheridan (Hons) Aspects of the searching behaviour of *Cotesia rubecula*.

ROBINSON, Kathryn (Hons) The biology of *Diaulomorpha* sp. (Hymenoptera: Eulophidae), a parasitoid of *Dialectica scalariella* (Lepidoptera: Gracillariidae), a biocontrol agent for *Echium plantagireum*.

SAEED, Azhar (PhD) Systematics and phylogeny of the genus *Diolcogaster* Ashmead (Hymenoptera: Braconidae) with a revision of Australasian species.

SALEHI, Latif (PhD) An investigation of the efficiency of two parasitoids of potato moth, *Apanteles subandinus* and *Orgillus lepidus*.

SOLEIMAN-NEJADIAN, Ebrahim (PhD) The ecology of two common species of hoverflies (*Simosyrphus grandicornis* and *Melangyna viridiceps*, Diptera: Syrphidae) and their impact on the population of green peach aphid on potato.

TAVERNER, Peter (MAgSc) Physiological effects of post-harvest oils on citrus pests.

Department of Horticulture,
Viticulture and Oenology

KELLOW, Alison (PhD) Grapevine Phylloxera interactions: Mechanisms for resistance.

WINNALL, Stephen (Hons) Characterisation of Australian Phylloxera strains.

Flinders University

School Of Biological Sciences

BULL, Nicholas (PhD) Conflict and cooperation in the allodapine bee, *Exoneura bicolor.*

CRONIN, Adam (PhD) Ecological factors influencing social organisation in Australian allodapine bees along the Australian eastern seaboard.

EVANS, Richard (Hons) Fluctuating asymmetry and its relationship to ploidy in the Australian native bee, *Exoneura bicolor.*

HURST, Pam (PhD) Social organisation in the highly eusocial allodapine bee, *Exoneurella tridentata.*

KRANZ, Brenda (PhD) Inbreeding, sex allocation and the evolution of social behaviour in Australian gall-forming thrips (Thysanoptera: Phlaeothripidae) on acacias.

LEIJS, Remko (PhD) Phylogeny and social evolution in the carpenter bees, tribe Xylocopini.

MORRIS, David (Hons) Phylogeny of Australian gall-forming thrips and their allies (Thysanoptera: Phlaeothripidae).

STEEN, Zeta (PhD) Ecology and behaviour of the Australian green carpenter bee, *Lestis aeratus.*

WATINIASIH, Ni Luh (PhD) Ecology and social behaviour of the xeric allodapine bee, *Exoneurella eremophila.*

ZAMMIT, John (Hons) Sex allocation strategies in fig wasps from the central Australian rock fig, *Ficus platypoda.*

TASMANIA
(Mr Dick Bashford,
Regional Councillor Tasmania)

The University Of Tasmania

DUNGEY, Heidi (PhD) Susceptibility of *Eucalyptus* hybrids to herbivores.

REID, Kathrine (MAgSc, qual p/t) Reproductive physiology of *Chrysophtharta bimaculata* (Coleoptera: Chrysomelidae).

MICHAELS, Karyl (PhD) Ecology of carabid beetles in the Southern forests of Tasmania (Dept of Geography and Environmental Studies, University of Tasmania).

Co-operative Research Centre for
Temperate Hardwood Forestry

CANDY, Steve (PhD, p/t) Mathematical models to support integrated pest management of leaf beetles.

HOWLETT, Bradley (PhD) Host location and acceptance of *Chrysophtharta bimaculata* (Coleoptera: Chrysomelidae).

HUNT, Alastair (PhD) Feeding ecology of *Cleobora mellyi* (Coleoptera: Coccinellidae), an egg and larval predator of *Chrysophtharta bimaculata* (Coleoptera: Chrysomelidae).

LUKACS, Zolton (PhD) Biology of *Mnesampela privata* (Lepidoptera: Geometridae).

SIMMUL, Tara (PhD) Ecology of the fireblight beetle, *Pyrgoides orphana* (Coleoptera: Chrysomelidae), a pest of silver wattle.

Department of Agricultural Science

APRIYANTO, Enggar (MAgSc) Integrated control of soft scale insects infesting *Boronia megastigma* Nees in Southern Tasmania.

BOWDITCH, Terry (PhD) Investigations of factors relating to the insect infestation of chocolate based consumables.

GRIGGS, Judi (MAgSc) Ecology of the black pine bark beetle, *Hylastes ater* (Coleoptera: Scolytidae).

LATE ADDENDUM

Regional News - ACT

Dr **Jyrki Muona** of the Finnish Museum of Natural History in Helsinki visited the Division of Entomology from 7-16 April. He gave a talk on click beetle phylogeny and discussed various matters with **John Lawrence** and **Andrew Calder.**

Andrew Calder's book "Click Beetles: Genera of Australian Elateridae (Coleoptera) was recently published as Vol. 2 of the new series Monographs on Invertebrate Taxonomy.

John Lawrence visited Landcare Research in Auckland in late April and attended the last meeting of the Fauna of New Zealand Advisory Group. This body was officially dissolved and replaced by the Invertebrate Systematics Advisory Group, with an exparided role including input into future research directions for the Biosystematics of New Zealand Land Invertebrates program based at the Mount Albert Research Centre.

Geoff Clarke has taken up a position as Project Leader of the newly established Invertebrate Conservation Biology Project. The project will be focussed in two major areas; (1) research on conservation genetics of threatened and endangered insects and related terrestrial invertebrates including the undertaking of population viability analysis for selected species and (2) the development of a national database and information retrieval system for Australia's rare, threatened and endangered insects and terrestrial invertebrates. Geoff can be contacted on (06) 246 4078 or email: geoffc@ento.csiro.au.

Tingkui Qin visited Canberra in late July and called in to discuss his recent overseas trip and current work with **Penny Gullan**. During the same period, Ms **Juan Qu**, a quarantine entomologist from Shenzhen in China, made a short visit to Canberra to see Penny. Juan had just completed two months of study on scale insects at UQ and was en route home to China.

Ben Gunn has started his Honours year and will be working on a project jointly supervised by **Peter Cranston** (CSIRO Entomology) and **Chris Humphrey** (Environmental Research Institute of the Supervising Scientist, NT) on the development of the aquatic fauna of the Magela floodplain during early wet season inundation.

Hanna Reichel arrived in Canberra in mid May to commence her PhD project on the systematics and biogeography of the ant genus *Rhytidoponera*. She plans to use both morphological and molecular data and is jointly supervised by **Steve Shattuck** (CSIRO Entomology) and **Penny Gullan**.

Graham Crompton has been appointed to the Manager (ANIC) position effective fomr 1 July. **Laurence Mound** left on 26 may and is scheduled to return to the ANIC on 1 November 1996. **Günther Theischinger** has been appointed for one week per month for the period July 1996 - June 1997 to assist with the curation of the freshwater orders odonata, Plecoptera, Megaloptera, Ephemeroptera and Trichoptera.

Ebbe Nielsen was in Washinton DC 2-8 June (OECD Megascience Working Group) and in Narrabri 11-12 June. **Ian Common** travelled to the USA 11-17 June to accept the Karl Jordan Medal 1996 at the International Lepidopterists' Society conference in Houston, Texas. **Jo Cardale** attended the Austaliasian Pollination Ecologists meeting and Ecological Society of Australia meeting in Townsville 2-12 July. **Mick Day** of Harrow , England worked in the ANIC 26 June-6 July with **Ian Naumann** on spider wasps.

Mike Hodda commenced his field program for his ABRS-funded work on Australian Freshwater nematodes. Mike spent three days sampling billabongs and the lower reaches of the Ovens River, west of Rutherglen, with **Rob Cook** from the CRC for Freshwater Ecology. The Ovens is unregulated, which means the billabongs are flooded on a regular basis, and CRC FE have had monitoring sites in the area for some years. **Murray Upton** has finished his astonishing *magnum opus* on the history of the ANIC and now has become an honorary lepidopterist again.

A quarantine entomologist meeting was held 16,17,18 July which was attended by **Ted Fenner** (NT), **Jeroen den Hollander** (WA), **Tony Postle** (NAQS, Broome), **Greg Baker** (SA), **Mohamed Mekhamer** (Vic), **Margaret Williams** (Tas), **James Walker** and **Brian Read** (NSW), **Bill Crowe** (Qld), **Glynn Maynard**, **David Nordsvan** and **Kay Lindsay** (ACT) together with a number of central office staff. It was nicely timed to coincide with the coldest weather Canberra has had this year.

Glynn MAYNARD
Regional Councillor

THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.

FORM OF NOMINATION FOR MEMBERSHIP

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We the undersigned

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